

COMPREHENSIVE ANNUAL FINANCIAL REPORT

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA

A Fiduciary Fund of the
City of Danville, Virginia



For the Fiscal Year Ended
JUNE 30, 2018

COMPREHENSIVE ANNUAL FINANCIAL REPORT

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA

**A Fiduciary Fund of the
City of Danville, Virginia**

For the Fiscal Year Ended June 30, 2018

**Prepared by the
Employees' Retirement System
of the
City of Danville, Virginia**

**Michael L. Adkins
Executive Secretary**



EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
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INTRODUCTORY SECTION





Government Finance Officers Association

**Certificate of
Achievement
for Excellence
in Financial
Reporting**

Presented to

**Employees' Retirement System
of the City of Danville, Virginia**

For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended

June 30, 2017

Christopher P. Morrill

Executive Director/CEO



City of Danville

Employees' Retirement System

LETTER OF TRANSMITTAL

November 30, 2018

To the Honorable Mayor and Members of City Council
City of Danville, Virginia

The comprehensive annual financial report (CAFR) of the Employees' Retirement System of the City of Danville, Virginia (ERS) for the fiscal year ended June 30, 2018, is submitted herewith. Responsibility for both the accuracy of the data and the completeness and fairness of the presentation rests with the management of the ERS.

The Governmental Accounting Standards Board (GASB) requires management to provide a narrative introduction, overview, and analysis to accompany the basic financial statements in the form of Management's Discussion and Analysis (MD&A). This transmittal letter is designed to complement the MD&A and should be read in conjunction with it. The MD&A starts on page 15 of this report.

Plan History

The ERS is a defined benefit plan established by City Council on January 1, 1946, for the purpose of providing retirement, disability, and death-in-service benefits to all regular, full-time employees of the City of Danville.

The ERS is a noncontributory plan with all contributions paid by the City of Danville. These contributions, added to the accumulated contributions and investment earnings, provide the funds for benefit payments.

The ERS is governed by the provisions of Chapter 32 of the Code of the City of Danville, Virginia and Ordinances adopted by City Council. The nine-member Board of Trustees has the fiduciary responsibility for the general administration and management of the ERS.

Upon becoming a regular, full-time employee of the City, each employee is classified as a "general employee" or "public safety employee," which includes uniformed police and fire personnel. The two employee groups have different pension benefits and early service retirement allowances.

Benefits and Services Provided

The ERS provides normal service retirement and early service retirement benefits for members who attain the age and service requirements. Members are vested after five years of creditable service. Disability benefits for non-occupational injury or illness are provided to members who have five or more years of creditable service but have not attained normal service retirement age. Death-in-service benefits are provided to the designated beneficiary of a member who dies while in service to the City.

The ERS staff provides a Benefit Statement to all members as of June 30 each year and an Annual Report to Members. The staff provides counseling throughout the year to all benefit applicants and makes a presentation at orientations for new employees.

The ERS is considered part of the City of Danville's reporting entity and is included in the City's Comprehensive Annual Financial Report (CAFR) as a pension trust fund. The City's CAFR is available upon request and is being submitted to the Government Finance Officers Association for review under the Certificate of Achievement for Excellence in Financial Reporting program.

Economic Conditions and Outlook

The U.S. economy has been strong for the past year. U.S. real Gross Domestic Product (GDP) grew at a 4.1% annualized rate during the second quarter of 2018. This was an improvement over the 2.2% annualized growth rate in the first quarter. We believe that year-over-year GDP growth will stay near long-term averages, around 2-3% annually. The unemployment rate in June fell to 4.0%, continuing its downward trend. This rate is well down from the highs following the 2008 financial crisis. While unemployment may dip lower in the near future, we expect a healthy rate between 4-5% over the long-term. The health of the US economy and optimism in the markets can be seen as domestic stocks continued on their bull run, with another strong one-year performance for the S&P 500 of 14.4%. Many experts feel that a correction may be in the future, but no one can know for certain when it may occur.

Short-term rates are on the rise, as the Federal Reserve Board voted to raise the Fed funds rate to 1.75%-2% in the 2nd quarter. For the first time in a decade, cash has generated a small, but measurable return. However, longer-term rates have not risen at the same time, leading to a flattening yield curve, as 10-year Treasuries have hovered around a 3% yield. Bonds continue to be unattractive in the long-term. Current yields will be a head wind on any long-term asset allocation for all but the most risk-averse investor. There has been speculation that a recession is coming within the next 18 months, though no one can predict when. We remain confident in the strength of the System's current asset allocation, and continue to believe in maintaining course.

Major Initiatives

City Council approved an ordinance amending the City Code to state that retirees will no longer receive COLAs, effective July 1, 2013. City Council also adopted resolutions to implement a new retiree bonus policy, which calls for a one-time bonus for retirees when certain criteria are met and upon City Council approval. Because a pattern has not yet been established under the new policy and management has concluded that the actions of future City Councils are uncertain, no assumptions relative to these future bonuses have been included in the actuary's estimate of the plan's actuarial accrued liability. The effect of removing the COLA assumption, and not incorporating an assumption for the bonus, had the effect of reducing the actuarial accrued liability by \$30,716,477 in 2013. The City awarded a one-time bonus to retirees in November 2014 and it totaled \$414,613; the City sent a contribution to ERS of the same amount to fund the bonus. No bonus has been awarded since.

In March 2015, the ERS Board of Trustees adopted a new asset allocation and began deployment to move towards the new allocation. The allocation change is displayed in the Asset Allocation Trend table on page 18.

Financial Information

Accounting System. This report has been prepared in accordance with the principles of governmental accounting and reporting promulgated by the Governmental Accounting Standards Board. The accrual basis of accounting is used to record assets, liabilities, revenues, and expenses. Revenues for the ERS are recorded when earned regardless of the date of collection. Expenses are recorded when liabilities are incurred regardless of when payment is made.

Internal Control. Management of the ERS is responsible for the adequacy of internal accounting controls. Internal accounting controls are designed to provide reasonable, but not absolute, assurance regarding the safeguarding of assets against loss from theft, misuse or unauthorized disposition and to ensure that adequate accounting data is compiled to allow for the preparation of financial statements in conformity with generally accepted accounting principles. The concept of reasonable assurance recognizes that the cost of a control should not exceed the benefits likely to be derived, and the valuation of costs and benefits requires estimates and judgments by management. We believe the ERS's internal accounting controls adequately safeguard assets and provide reasonable assurance of proper recording of financial transactions.

Revenues and Expenses. The revenues required to finance retirement benefits are accumulated through employer contributions and investment income. The following schedule represents a summary of the revenues for the fiscal year ended June 30, 2018, and the amount of increases and decreases relative to prior year revenues:

	2018	Percent of Total	2017	Increase (Decrease) From 2017
Revenue Source:				
Investment income (Net of investment expenses)	\$ 16,591,447	84.0%	\$ 25,415,340	\$ (8,823,893)
Employer contributions	3,276,604	16.0%	2,857,851	418,753
	<u>\$ 19,868,051</u>	<u>100.0%</u>	<u>\$ 28,273,191</u>	<u>\$ (8,405,140)</u>

The expenses of the ERS relate to the purpose for which it was created, the payment of retirement benefits. The following schedule presents a summary of the expenses for the fiscal year ended June 30, 2018, with the amount of increases and decreases in relation to prior year expenses:

	2018	Percent of Total	2017	Increase (Decrease) From 2017
Benefits paid to participants	\$ 12,716,164	99.3%	\$ 12,174,988	\$ 541,176
Refunds to former members	0	0.0%	25,085	(25,085)
Administrative expenses	86,905	0.7%	111,095	(24,190)
	<u>\$ 12,803,069</u>	<u>100.0%</u>	<u>\$ 12,311,168</u>	<u>\$ 491,901</u>

Benefits paid to participants reflect an increase of \$541,176 for the fiscal year ending June 30, 2018, compared to the prior year. The increase in benefits paid is due to the number of participants increasing to 665.

Investments. At June 30, 2018, the aggregate account was valued at \$255,062,885, a \$7,064,982 increase from the June 30, 2017 value of \$247,997,903. The total portfolio returned 7.4% for the current fiscal-year-to-date, ranking in the 77th percentile. By engaging multiple advisers and employing a core philosophy, the Board of Trustees has sought to ensure the aggregate fund is well diversified. Investment policies have been established to meet long-term goals that include earning a compounded rate of return of 7%.

Funding Status

A pension plan is considered adequately funded when sufficient reserves are available to meet all expected future obligations to participants. The ERS's funding objective is to meet long-term benefit payments through annual employer contributions that remain approximately level as a percent of the member payroll. Increased funding improves the ratio of assets and provides greater investment potential. The advantage of a well-funded plan is participants are confident assets are committed to the payment of their current and future benefits. The actuarial accrued liability and the actuarial value of assets of the ERS as of June 30, 2018 amount to \$228,026,950 and \$232,284,874, respectively. This gives the ERS a funded ratio of 101.9% as of June 30, 2018. Additional information relative to the funded status of the ERS is provided in both Management's Discussion and Analysis within the Financial Section and in the Actuarial Section of this report.

The City of Danville is dedicated to providing a financially sound retirement plan for its members, which is illustrated in two schedules in this report. The "Schedule of Funding Progress" on page 60 presents a measure of projected plan liabilities called the actuarial accrued liability. The measure, a disclosure required for public employee pension plans (PERS) by the Governmental Accounting Standards Board, allows the reader of this report to make comparisons among PERS and to assess the progress made by the ERS in accumulating sufficient assets to pay benefits when due. The "Schedule of City Contributions" on page 34 includes information about the annual actuarially determined contributions of the employer and the actual contribution made by the employer in relation to the actuarially determined contributions.

Investment Authority and Policy

The Board of Trustees has adopted a Statement of Policy and Guidelines for investing the funds of the ERS, which the professional investment managers follow. An asset allocation strategy was devised to allow an investment portfolio of approximately 30% domestic equities, 30% fixed income securities, 10% international equities, 10% emerging markets, 10% real estate, 5% private equity and 5% timber real estate. To implement the policy and strategy, the Board presently employs a core investment manager for both equities and bonds and eight specialty managers. In addition, the services of an independent investment consultant are provided to the Board to ensure the objectives of the Policy and Guidelines are accomplished. Quarterly reports are furnished to the Board by the investment consultant for the purpose of evaluating the performance of each investment manager.

Northern Trust Company of Chicago, Illinois serves as custodian for funds managed solely for the benefit of the ERS. Any purchases of units in commingled funds have other designated custodians.

Northern Trust has an insurance policy to secure trust funds for every account held, pledges to the Federal Reserve Bank to cover funds on deposit with their bank, as well as a corporate insurance policy. Further insurance carried by the depository includes coverage against losses occurring on the premises or during transit.

Professional Services

Professional financial managers are appointed by the Board of Trustees to perform services that are essential to the effective and efficient investment of assets. An independent auditor's report and a certification from the actuary are included in this report. The professionals appointed by the Board of Trustees are listed on page 6 of this report.

Awards and Acknowledgements

Certificate of Achievement. The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the Employees' Retirement System of the City of Danville for its comprehensive annual financial report for the fiscal year ended June 30, 2017. The Certificate of Achievement is a prestigious national award recognizing conformance with the highest standards for preparation of state and local government financial reports.

In order to be awarded a Certificate of Achievement, a government unit must publish an easily readable and efficiently organized comprehensive annual financial report (CAFR), whose contents conform to the program standards. The CAFR must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. The Employees' Retirement System of the City of Danville has received a Certificate of Achievement for the last twenty-three consecutive years. We believe our current CAFR continues to meet the Certificate of Achievement Program's requirements, and we are submitting it to the GFOA to determine its eligibility for another certificate.

Acknowledgements. The compilation of this report reflects the combined effort of the ERS staff. On behalf of the Board of Trustees, we would like to take this opportunity to express our gratitude to the staff who has worked diligently to assure the successful operation of the ERS. This report is intended to provide complete and reliable information as a basis for making management decisions, as a means of determining compliance with legal provisions, and for determining responsible stewardship of the funds of the ERS.

The Board greatly appreciates the support of City Council and we look forward to another challenging year.

Sincerely,

Joyce Obstler
Chairman, Board of Trustees

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
BOARD OF TRUSTEES
June 30, 2018

Joyce Obstler, Chairman
Member Trustee
Assistant Director, Information Technology Department
Term Expires: December 31, 2019

Gus S. Dolianitis
Citizen Trustee
Vice President, First Citizens Bank
Term Expires: December 31, 2019

Michael L. Adkins, Executive Secretary
Director of Finance
City of Danville, Virginia
Ex-Officio Trustee

Gina S. Craig
Member Trustee
Division Director, Parks & Recreation Department
Term Expires: December 31, 2018

Kenneth F. Larking
City Manager
City of Danville, Virginia
Ex-Officio Trustee

Norman Campbell
Member Trustee
Fire Captain, Fire Department
Term Expires: December 31, 2019

Sherman M. Saunders
Mayor
City of Danville, Virginia
Ex-Officio Trustee

E. Linwood Wright, Vice Chairman
Citizen Trustee
Retired, Dan River Inc.
Term Expires: December 31, 2019

Lenard D. Lackey, Jr.
Citizen Trustee
Retired, Danville/Pittsylvania County
Community Services Board
Term Expires: December 31, 2018

MEDICAL BOARD

Dr. Thomas Alabanza
Dr. Gregory Alba
Dr. Steven Bridges
Dr. Vinit Jalandhara

Dr. Sanjay Jaswani
Dr. Rachel McGee
Dr. Scott Oaks
Dr. Anupreet Oberoi

Dr. Nilay Patel
Dr. Paul Settle
Dr. James Turner

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
ADMINISTRATIVE ORGANIZATION
June 30, 2018

ADMINISTRATIVE STAFF

Michael L. Adkins
Director of Finance/Executive Secretary

Joanne Hickey
Human Resources Consultant

Sara B. Weller
Director of Human Resources

Henrietta Weaver
Accountant/Retirement Secretary

W. Clarke Whitfield, Jr.
City Attorney/Legal Advisor

PROFESSIONAL SERVICES

Actuary
Boomershine Consulting Group, LLC
Consultants/Actuaries
Ellicott City, Maryland

Auditor
Brown, Edwards & Company, LLP
Certified Public Accountants
Lynchburg, Virginia

INVESTMENT MANAGERS

Loomis, Sayles & Company, L.P.
Boston, Massachusetts

Northern Trust Asset Management
Chicago, Illinois

Hamilton Lane
Bala Cyn Wyd, Pennsylvania

PanAgora Asset Management, Inc.
Boston, Massachusetts

American Realty Advisors
Glendale, California

Lazard Asset Management
New York, New York

Rothschild Asset Management Inc.
New York, New York

BTG Pactual Timberland Investment
Group, LLC
Winston-Salem, North Carolina

HGK Asset Management
Jersey City, New Jersey

Intercontinental Real Estate Corporation
Boston, Massachusetts

INVESTMENT CONSULTANT

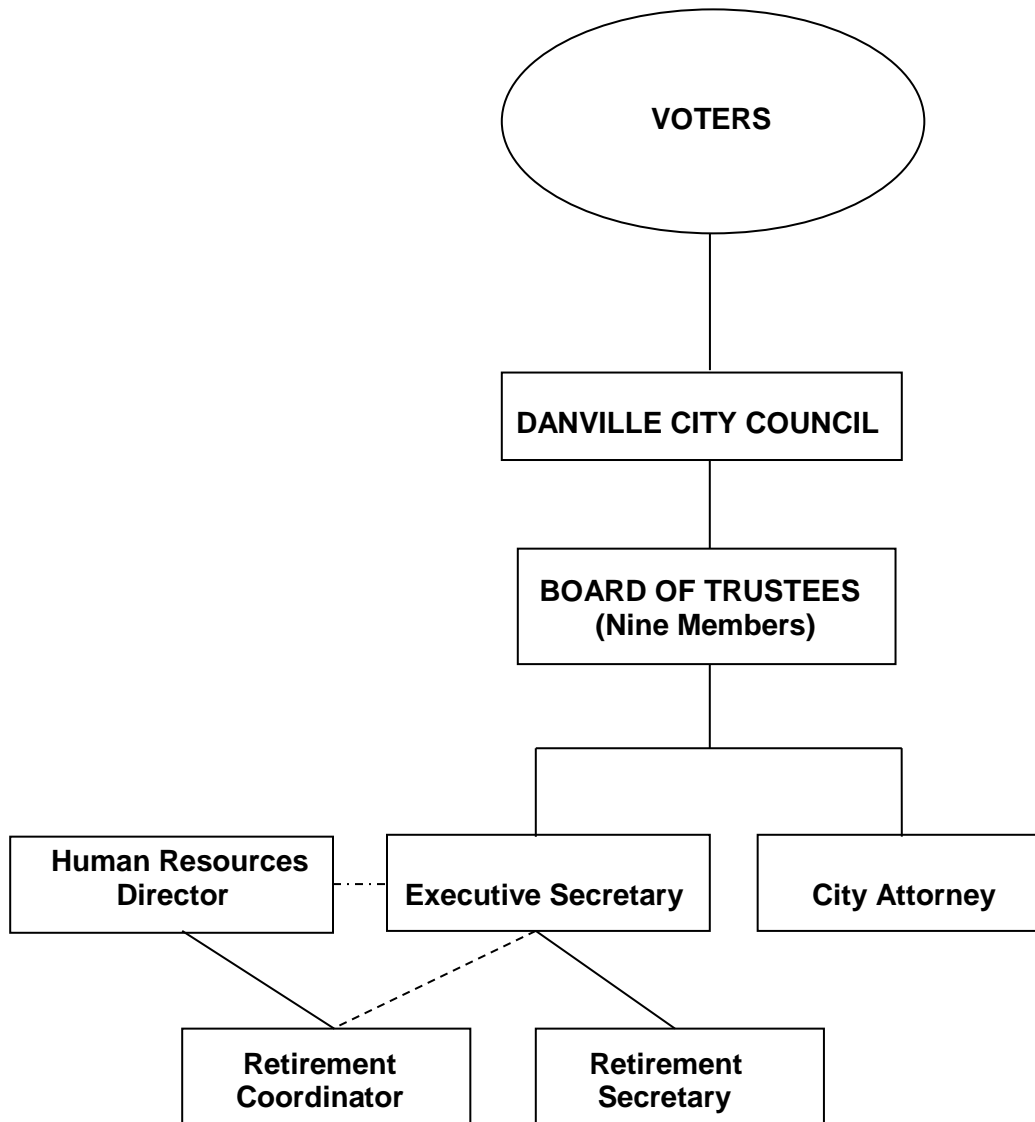
Dahab Associates, Inc.
Bay Shore, New York

INVESTMENT CUSTODIAN

The Northern Trust Company
Chicago, Illinois

The Schedule of Fees and Commissions (page 43) details fees paid to investment professionals who provided service to the ERS.

**EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
ORGANIZATIONAL CHART
June 30, 2018**



----- Denotes the position is not a direct report

———— Denotes the position is a direct report

-.-.-.- Denotes a collaborative position

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
SUMMARY OF PLAN PROVISIONS
June 30, 2018

Prior to October 1, 1991, regular full-time employees of the City of Danville became members of the Employees' Retirement System (ERS) after one year of continuous service. Members hired prior to October 1, 1991 are eligible for a refund of the balance of the Annuity Savings Account at termination of employment for reasons other than retirement. Regular full-time employees hired on or after October 1, 1991 become members of the ERS at the time of employment and no Annuity Savings Account is established for these members. Pension benefits for these members will be paid entirely from the pension funds accumulated by the ERS from City contributions and earnings. There are two groups of employees covered by the ERS:

Group 1 - General Employees

Group 2 - Public Safety Employees (uniformed police and fire personnel)

The operational provisions are the same for both groups of employees; however, the benefits are different. Public safety employees have higher benefits because they do not participate in the Social Security System. Public safety personnel employed after April 1, 1986 are covered by the Medicare provisions of the Social Security Act, but are not eligible for any retirement benefits under the Act.

Group 1 General Employees Retirement Benefits

The basic formula for calculating retirement benefits is an annuity equal to the amount provided by the contributions of the member up to the time of his or her retirement, plus a pension which will total an amount equal to 1.42% of \$9,500, plus 1.82% of the part of the three-year average salary in excess of \$9,500, multiplied by the number of years of creditable service.

Normal service retirement is age 65, or age 55 and at least 30 years creditable service. For members hired after December 7, 1999 normal service retirement is the later of the age at which the member has five or more years of creditable service or age 65.

Early retirement is as early as age 55 with less than 30 years creditable service. Reduction factors are applied to the basic formula for early retirement.

Non-occupational disability retirement benefits are available after five years of creditable service and prior to normal retirement age 65. The basic formula is used to calculate benefits with two exceptions: the actual service is doubled, not to exceed the creditable service the employee would have accumulated if he had worked to age 60, and there is no reduction in benefits prior to normal retirement age.

Occupational disability claims are processed by the Human Resources Department through workers' compensation if disability or injury occurs prior to normal retirement age regardless of length of service.

Death-in-service benefits are provided to the spouse, parent, or minor child of an employee who dies while in service to the City. The factors used to calculate benefits are: age of member and beneficiary, average final compensation, and years of creditable service. Provisions of Option 3 apply if death occurs before age 55, and provisions of Option 2 apply if death occurs at, or after, age 55. In lieu of monthly benefits, the beneficiary may elect to receive a lump sum distribution if the deceased member was employed prior to October 1, 1991.

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
SUMMARY OF PLAN PROVISIONS
June 30, 2018

Group 2 Public Safety Employees Retirement Benefits

The basic formula for calculating retirement benefits is the average final compensation (highest three consecutive years) times 2% times the number of years creditable service equals the annual pension. Effective September 1, 2018, the basic formula for calculating retirement benefits is the average final compensation (highest three consecutive years) times 2.2% times the number of years creditable service equals the annual pension.

Normal service retirement is age 60, or age 55 and at least 30 years creditable service. For members hired after December 7, 1999 normal service retirement is the later of the age at which the member has five or more years of creditable service or age 60. Effective September 1, 2018, normal service retirement is age 60, or age 50 and at least 25 years creditable service.

Early retirement is as early as age 55 with less than 30 years creditable service. Effective September 1, 2018, early retirement is as early as age 50 with less than 25 years creditable service. Reduction factors are applied to the basic formula for early retirement.

Non-occupational disability retirement benefits are available after five years of service and prior to the normal service retirement age 60. The basic formula is used to calculate benefits with two exceptions: the actual service is doubled, not to exceed the creditable service the employee would have accumulated if he had worked to age 60, and there is no reduction in benefits prior to normal retirement age. Occupational disability claims are processed by the Human Resources Department through workers' compensation if disability or injury occurs prior to normal retirement age.

Death-in-service benefits are provided to the spouse, parent or minor child of an employee who dies while in service to the City. The factors used to calculate benefits are: age of member and beneficiary, average final compensation, and years of creditable service. Provisions of Option 3 apply if death occurs before age 55, and provisions of Option 2 apply if death occurs at, or after, age 55. In lieu of monthly benefits the beneficiary may elect to receive a lump sum distribution if the deceased member was employed prior to October 1, 1991.

In May 2018, actions of the City Council (including budgetary approvals) served to change the retirement benefits for Public Safety employees by increasing the benefit multiplier from 2% to 2.2% and early retirement age to 50 with 25 years of creditable service. Although not formally adopted into City Code until August 2018, management considers the new plan provisions to be substantively in place as of June 30, 2018, and they have been included as a change in benefits in calculating the pension liability and pension expense as of that date.

General Provisions Applicable to Group 1 and Group 2

Retirement benefits are vested after five years of service. A vested benefit means a member is entitled to retirement benefits at some future date even if they terminate employment before retirement eligibility.

The retirement ordinance and subsequent amendments take precedence over any question that may arise concerning benefit information or calculation. The Retirement Coordinator is available to answer member questions and assist in the retirement application process.

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
SUMMARY OF PLAN PROVISIONS
June 30, 2018

Monthly benefits are provided throughout the lifetime of the retired member with survivor benefit options available.

Option 1. Basic benefit, provides the maximum allowance payable throughout the lifetime of the retiree, and upon death, the designated beneficiary receives the annuity reserve balance, if any, in a lump sum distribution. The refund of an annuity reserve balance is available only to the beneficiaries of members employed prior to October 1, 1991.

Option 2. 100% survivor benefit, provides a reduced allowance throughout the lifetime of the retiree, and upon death, the designated beneficiary will receive the same monthly benefit paid to the member.

Option 3. 50% survivor benefit, provides an allowance less than the basic benefit but more than the 100% survivor option payable throughout the lifetime of the retiree, and upon death, the designated beneficiary will receive 50% or one-half of the monthly benefit paid to the member.

Option 4. Alternative option, provides a reduced allowance payable throughout the lifetime of the retiree, and upon death, some other actuarial equivalent benefit is paid to the designated beneficiary. Use of this option is subject to approval by the Board of Trustees.

Option 5. Social Security option provides a greater monthly benefit until age 65 that is approximately equal to the combined ERS and social security amount. At age 65, when the retiree begins to receive social security, the ERS benefit is reduced by the amount of the social security benefit. This option provides the retiree a more level income throughout retirement.

There are no mandatory retirement provisions for City employees. All retirement dates are effective the first day of the month following the month of eligibility.

The employee/member also has the option at retirement to increase service credit by applying up to one year of unused sick leave.



FINANCIAL SECTION

INDEPENDENT AUDITOR'S REPORT

To the Board of Trustees
Employees' Retirement System of the
City of Danville, Virginia
Danville, Virginia

Report on the Financial Statements

We have audited the accompanying financial statements of the Employees' Retirement System of the City of Danville, Virginia (the "System"), as of and for the year ended June 30, 2018, and the related notes to the financial statements, as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the System as of June 30, 2018, and the changes in its financial position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Report on Summarized Comparative Information

We have previously audited the System's 2017 financial statements, and we expressed an unmodified audit opinion on those audited financial statements in our report dated November 22, 2017. In our opinion, the summarized comparative information presented herein, as of and for the year ended June 30, 2017 is consistent, in all material respects, with the audited financial statements from which it has been derived.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that management's discussion and analysis and certain schedules related to post-employment benefits as listed in the table of contents, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audit was conducted for the purpose of forming an opinion on the System's basic financial statements. The accompanying schedule of administrative expenses, schedule of investment expenses, schedule of payments to consultants, introductory section, the investment section, the actuarial section, and the statistical section are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The schedule of administrative expenses, schedule of investment expenses, and schedule of payments to consultants were derived from and relate directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the supplementary information referenced above is fairly stated in all material respects in relation to the basic financial statements as a whole.

The introductory section, the investment section, the actuarial section, and the statistical section have not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we do not express an opinion or provide any assurance on them.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated November 28, 2018 on our consideration of the System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the System's internal control over financial reporting and compliance.

Brown, Edwards & Company, L.L.P.

CERTIFIED PUBLIC ACCOUNTANTS

Lynchburg, Virginia
November 28, 2018

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
MANAGEMENT'S DISCUSSION AND ANALYSIS
For the Year Ended June 30, 2018

The discussion and analysis of the financial performance of the Employees' Retirement System (ERS) of the City of Danville, Virginia provides an overview of the financial activities and funding conditions for the fiscal years ended June 30, 2018, 2017, and 2016. Please review it in conjunction with the transmittal letter and the financial statements.

FINANCIAL HIGHLIGHTS

- ❖ The Plan's net position increased by \$7,064,982 (2.9%) as a result of activities for the fiscal year ended June 30, 2018. Net position restricted for pension benefits totaled \$255,062,885 at June 30, 2018 compared to \$247,997,903 at June 30, 2017. The increase is primarily attributable to the fluctuations in the fair value of investments.
- ❖ Employer contributions to the defined benefit plan increased \$418,753 (14.7%) from fiscal year 2017 due to the increase in the contribution rates in fiscal year 2018.
- ❖ Net investment income of \$16,591,447 for the fiscal year ended June 30, 2018, represents a decrease of \$8,823,893, compared to the net investment income of \$25,415,340 for the fiscal year ended June 30, 2017.
- ❖ Benefit payments increased \$541,176 (4.4%) from fiscal year 2017 to fiscal year 2018 due to the increased number of retirees receiving benefit payments. Benefit payments increased \$573,512 (4.9%) from fiscal year 2016 to fiscal year 2017 due to the increased number of retirees receiving benefit payments.

USING THE COMPREHENSIVE ANNUAL FINANCIAL REPORT

The financial statements reflect the activities of the Employees' Retirement System and are reported in the Statements of Fiduciary Net Position (page 20) and the Statements of Changes in Fiduciary Net Position (page 21). These statements are presented on a full accrual basis of accounting and reflect all trust activities as incurred.

STATEMENTS OF FIDUCIARY NET POSITION

The focus of the Statement of Fiduciary Net Position is cash, investments, and net position restricted for pension benefits at the end of the fiscal year, as illustrated in the following condensed comparative Summary of Fiduciary Net Position.

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
MANAGEMENT'S DISCUSSION AND ANALYSIS
For the Year Ended June 30, 2018

SUMMARY OF FIDUCIARY NET POSITION
(in thousands)

	June 30,		
	2018	2017	2016
Cash and investments	\$ 255,239	\$ 248,138	\$ 232,210
Receivables	42	42	3
Total assets	255,281	248,180	232,213
Accounts payable	218	183	177
Total liabilities	218	183	177
Net position restricted for pension benefits	\$ 255,063	\$ 247,997	\$ 232,036

STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION

The Statement of Changes in Fiduciary Net Position focuses on the financial activity of the trust for the fiscal year. The following table presents a condensed comparative summary of the changes in fiduciary net position.

SUMMARY OF CHANGES IN FIDUCIARY NET POSITION
(in thousands)

	Years Ended June 30,		
	2018	2017	2016
Additions			
Contributions	\$ 3,277	\$ 2,858	\$ 2,938
Investment income – net	16,591	25,415	645
Total additions	19,868	28,273	3,583
Deductions			
Pension benefits	12,716	12,175	11,602
Other	87	136	147
Total deductions	12,803	12,311	11,749
Net increase (decrease) in net position restricted for pension benefits	\$ 7,065	\$ 15,962	\$ (8,166)

Benefit payments are a function of changing payments to retirees, beneficiaries, and new retirements during the period. The increase in pension benefits in fiscal year 2018 is due in part to the increased number of retirees receiving benefit payments. The increase in pension benefits from fiscal years 2016 and 2017 is also attributable to an increase in the number of retirees.

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
MANAGEMENT'S DISCUSSION AND ANALYSIS
For the Year Ended June 30, 2018

PLAN MEMBERSHIP

The table below reflects the plan membership as of June 30, 2018, 2017, and 2016.

	PLAN MEMBERSHIP			Change	
	June 30,				
	2018	2017	2016	2018	2017
Active participants					
Vested	585	607	645	-3.6 %	-5.9 %
Non-vested	340	337	307	0.9 %	9.8 %
Retirees and beneficiaries	665	652	615	2.0 %	6.0 %
Terminated vested	305	286	274	6.6 %	4.4 %
Total	<u>1,895</u>	<u>1,882</u>	<u>1,841</u>	<u>0.7 %</u>	<u>2.2 %</u>

FUNDED STATUS

Of primary concern to most pension plan participants is the amount of money available to pay benefits. Historically, defined benefit pension plans have been underfunded when the employer failed to make annual actuarially required contributions. The City has traditionally contributed the actuarially determined contribution (ADC) as determined by the ERS's actuary. The City contributed \$801,687 less than the ADC in fiscal year 2018.

Funded status is the ratio of the actuarial value of assets to the actuarial accrued liability. An increase in this percentage over time usually indicates a plan is becoming financially stronger. However, a decrease will not necessarily indicate a plan is in financial decline. Changes in actuarial assumptions can significantly impact the actuarial present value of future benefits. Performance in the equity and fixed income markets can have a material impact on the actuarial value of assets.

The actuary uses a five-year smoothing of market value to establish the actuarial value of the assets, which is used to determine the funded ratio. The ERS's funded status was 101.9%, 100.4%, and 99.5% as of June 30, 2018, 2017, and 2016, respectively. The ERS's unfunded actuarial liability (asset) was (\$4,257,924), (\$895,033), and \$1,156,823, as of June 30, 2018, 2017, and 2016, respectively.

As of June 30, 2018, the market value of assets was \$255,062,885 and the actuarial value of assets was \$232,284,874 which resulted in a valuation adjustment of \$22,778,011.

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
MANAGEMENT'S DISCUSSION AND ANALYSIS
For the Year Ended June 30, 2018

NET PENSION LIABILITY OF THE CITY

As disclosed in note 12, the City of Danville, Virginia (City) had a net pension asset of \$24,547,520 and \$30,460,056 as of June 30, 2018 and 2017, respectively. This is based on the market value of ERS assets of \$255,062,885 and \$247,997,903 at June 30, 2018 and 2017, respectively.

ASSET ALLOCATION

The table below indicates the policy trend asset allocation for June 30, 2018, 2017, and 2016. The target allocation was amended in fiscal year 2018 as shown below.

ASSET ALLOCATION TREND

	Target Allocation			Actual Allocation		
	2018	2017	2016	2018	2017	2016
Equity						
Domestic	30%	30%	30%	31%	35%	41%
International	10%	10%	10%	12%	12%	12%
Emerging Markets	10%	10%	10%	12%	12%	10%
Private Equity	5%	5%	5%	3%	2%	2%
Bonds	30%	30%	30%	26%	23%	24%
Real Estate	10%	10%	10%	13%	13%	5%
Real Estate – Timber	5%	5%	5%	2%	2%	3%
Cash	-	-	-	1%	1%	3%
Total	100%	100%	100%	100%	100%	100%

INVESTMENT ACTIVITIES

Investment income is vital to the Plan's current and continued financial stability. Therefore, trustees have a fiduciary responsibility to act prudently and discreetly when making Plan investment decisions. To assist the Board in this area, a comprehensive formal investment policy is updated periodically. As managers and asset classes have been added, specific detailed investment guidelines have been developed, adopted and included as an addendum to each manager's Investment Agreement. The plan is governed by the Code of the City of Danville.

Portfolio performance is reviewed quarterly by the Board and its consultants. Performance is evaluated individually by money manager style, collectively by investment type and for the aggregate portfolio. Investment types include both domestic and international equities, emerging market equity, private equity, fixed income, and real estate.

A schedule reflecting the current year and five-year average performance is available on page 40.

**EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
MANAGEMENT'S DISCUSSION AND ANALYSIS
For the Year Ended June 30, 2018**

ECONOMIC FACTORS

Since the primary function of the pension trust is to (a) appropriately award and pay benefits and (b) manage investments, the demonstration of opportunities available considering various investment choices is invaluable in the asset allocation and money manager oversight.

Growth in the market resulted in a net appreciation in the fair value of investments of \$15,725,698 in fiscal year 2018 and \$24,789,241 in fiscal year 2017.

CONTACTING THE PLAN'S FINANCIAL MANAGEMENT

The financial report is designed to provide citizens, taxpayers, plan participants and the marketplace's credit analysts with an overview of the Plan's finances and the prudent exercise of the Board's oversight. If you have any question regarding this report or need additional financial information, please contact the City's Director of Finance, P.O. Box 3300, Danville, Virginia 24543.

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
STATEMENTS OF FIDUCIARY NET POSITION
As of June 30, 2018

	2018	(For Comparative Purposes Only) 2017
ASSETS		
Cash	\$ 96,541	\$ 68,096
Receivables		
Accrued interest and dividends	37,791	41,892
Other receivables	4,133	-
	<u>41,924</u>	<u>41,892</u>
Investments - at fair value		
Common stocks and common stock funds	109,203,049	116,585,275
Corporate bonds and bond funds	48,272,143	38,753,817
Foreign stock funds	30,276,126	30,688,239
U.S. Government bond funds	18,263,122	18,257,824
Real estate	33,792,811	31,204,308
Real estate - timberland and timberland funds	5,350,914	5,824,682
Temporary cash investments	2,744,199	1,465,855
Private equity funds	7,240,441	5,290,409
	<u>255,142,805</u>	<u>248,070,409</u>
Total investments		
	<u>255,142,805</u>	<u>248,070,409</u>
Total assets	<u>255,281,270</u>	<u>248,180,397</u>
LIABILITIES		
Accounts payable	218,385	182,494
Net position restricted for pension benefits	<u>\$ 255,062,885</u>	<u>\$ 247,997,903</u>

The accompanying notes are an integral part of these financial statements.

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION
For the Year Ended June 30, 2018

	2018	(For Comparative Purposes Only) 2017
Additions		
Employer contributions	\$ 3,276,604	\$ 2,857,851
Investment income		
Net appreciation in fair value of investments	15,725,698	24,789,241
Interest	67,759	48,199
Dividends	1,594,890	1,285,687
Total investment income	17,388,347	26,123,127
Less - investment expense	(796,900)	(707,787)
Net investment income	16,591,447	25,415,340
Total additions	19,868,051	28,273,191
Deductions		
Benefits paid to participants	12,716,164	12,174,988
Refunds to former members	-	25,085
Administrative expenses	86,905	111,095
Total deductions	12,803,069	12,311,168
Net change	7,064,982	15,962,023
Net position restricted for pension benefits:		
Beginning of year	247,997,903	232,035,880
End of year	\$ 255,062,885	\$ 247,997,903

The accompanying notes are an integral part of these financial statements.

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
NOTES TO FINANCIAL STATEMENTS
June 30, 2018

1. Plan Description

The ***Employees' Retirement System of the City of Danville, Virginia*** (ERS), a single-employer defined benefit plan, was established on January 1, 1946, and was placed under the management of the Board of Trustees for the purpose of providing retirement, disability, and death benefits for full-time permanent employees in accordance with Chapter 32 of the Danville City Code. The City makes contributions to the ERS, which acts as administrator of a single-employer defined benefit pension plan. As such, the ERS functions as an investment and administrative agent for the City with respect to the plan. The ERS is a fiduciary fund and is included in the City's Comprehensive Annual Financial Report as a pension trust fund.

All full-time employees of the City, excluding School Board employees and elected officials and their employees (who are covered under the Virginia Retirement System), are eligible to participate. Upon becoming a regular, full-time employee of the City, each employee is classified as a "general employee" or as a "public safety employee" (uniformed police and fire personnel). The two employee classes have different pension benefits and early service retirement allowances. As of June 30, 2018 employee membership in the ERS was as follows:

	<u>General Employees</u>	<u>Public Safety Employees</u>	<u>Total</u>
Retirees and beneficiaries currently receiving benefits	504	161	665
Terminated employees entitled to benefits but not yet receiving them	234	71	305
	<u>738</u>	<u>232</u>	<u>970</u>
Active plan participants:			
Vested	404	181	585
Nonvested	282	58	340
	<u>686</u>	<u>239</u>	<u>925</u>
	<u>1,424</u>	<u>471</u>	<u>1,895</u>

The pension plan provides retirement, disability, and death benefits. After five years of creditable service, general employees who attain the age of 65, or who accumulate at least 30 years of creditable service and attain the age of 55, may retire with full benefits. Public safety employees who attain age 60, or age 55 with at least 30 years of creditable service are eligible for retirement with full benefits. Effective September 1, 2018, public safety employees who attain age 60, or age 50 with at least 25 years of creditable service are eligible for retirement with full benefits.

For a general employee, the retirement allowance consists of an annuity equal to the amount provided by the contributions of the member up to the time of his or her retirement, plus a pension which will total an amount equal to 1.42% of \$9,500, plus 1.82% of the part of the three-year average salary in excess of \$9,500, multiplied by the number of years of creditable service. A general employee with at least five years of service may retire early after reaching the age of 55 and receive reduced benefits.

The retirement allowance for a public safety employee consists of an annuity equal to the amount provided by the contributions of the member up to the time of his or her retirement, plus a pension

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
NOTES TO FINANCIAL STATEMENTS
June 30, 2018

which will total an amount equal to 1/50th or 2% of the final three-year average salary multiplied by the number of years of creditable service. A public safety employee, with at least five years of service, may retire early after reaching the age of 55 and receive reduced benefits.

Effective September 1, 2018, the retirement allowance for a public safety employee consists of an annuity equal to the amount provided by the contributions of the member up to the time of his or her retirement, plus a pension which will total an amount equal to 2.2% of the final three-year average salary multiplied by the number of years of creditable service. A public safety employee, with at least five years of service, may retire early after reaching the age of 50 and receive reduced benefits.

Pension provisions include disability benefits whereby a member who becomes totally and permanently incapacitated and who has completed five years of creditable service is eligible to receive a disability retirement allowance. The allowance begins at the time of the disability and is based on creditable service to date and a projection of creditable service assuming no disability. The allowance is offset by any workers' compensation benefits if the disability is work-related.

If, after five years of service, an active member should die at any time prior to retirement, a retirement allowance shall be payable to either the spouse, minor child, or parent of the member. Such retirement allowance will be continued during the lifetime of such person, or in the case of a minor child, until such time as the child dies or attains majority. For members employed prior to October 1, 1991, the beneficiary may elect to receive as a lump sum the member's accumulated contributions, with interest, in lieu of any other benefits under the ERS.

Participants should refer to the Plan agreement for a more complete description of the Plan's provisions.

2. Summary of Significant Accounting Policies

The Reporting Entity

The ERS is financially dependent on the City of Danville, Virginia to provide such amounts as necessary, based on actuarial determinations, to provide the ERS with assets sufficient to cover the plan's current costs and to fund any past service costs. The Board is comprised of nine members: three are appointed by Danville City Council, three members elected by City employees who are members of the ERS, the Mayor or his designee, the City Manager, and the Director of Finance. The ERS provides services solely to the City. The ERS has no component units as defined by accounting principles generally accepted in the United States of America.

Basis of Accounting

The financial statements of the ERS are prepared on the accrual basis of accounting in accordance with Governmental Accounting Standards Board (GASB) Statement No. 67, *Financial Reporting for Pension Plans*, which provides financial reporting guidance for pension plans that are administered through trusts or equivalent arrangements. Contributions from the City are recognized as revenue when due, pursuant to formal commitments, as well as statutory or contractual requirements. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan. Investment income is recognized as it is earned. The net appreciation or depreciation in the fair value of investments held by the ERS is recorded as an increase or decrease in investment income based on the valuation of investments as of the date of the statement of fiduciary net position.

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
NOTES TO FINANCIAL STATEMENTS
June 30, 2018

Investments

Investments are reported at fair value. Temporary cash investments are reported at cost, which approximates fair value. Securities traded on national or international exchanges are valued at quoted market prices as of the date of the statement of fiduciary net position. The real estate and real estate – timberland funds are reported at net asset value (NAV) from the investment manager which is based on independent appraisals. Commingled funds are reported at NAV, based on the quoted market prices of the underlying securities of the fund. Private equity partnerships are valued using their respective NAV. The most significant input into the NAV of such an entity is the estimated fair value of its investment holdings. These holdings are valued by the general partners on a quarterly basis and audited annually, in accordance with applicable financial reporting standards.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results could differ from those estimates.

Costs of Administering the Plan

Certain administrative expenses are now being paid from the trust fund. The costs of administering the plan are financed by investment revenues. These expenses are not considered to be material and are not explicitly stated in the valuation.

4. Protection of Public Deposits

At year end, the carrying value of the ERS' deposits with banks was \$96,541 and the bank balance was \$166,656. The bank balance was covered by federal depository insurance.

Deposits with banks are covered by the Federal Deposit Insurance Corporation (FDIC) and collateralized in accordance with the Virginia Security for Public Deposits Act (the "Act") Section 2.2-4400 et. seq. of the Code of Virginia. Under the Act, banks and savings institutions holding public deposits in excess of the amount insured by the FDIC must pledge collateral to the Commonwealth of Virginia Treasury Board. Financial institutions may choose between two collateralization methodologies and depending upon that choice, will pledge collateral that ranges in amount from 50% to 130% of excess deposits. Accordingly, all deposits are considered fully collateralized.

5. Investments

All investments are to adhere to the Board of Trustees Statement of Policy and Guidelines adopted on August 13, 1997, as amended. The Investment Consultant and the Executive Secretary of the Board will review compliance with these policies and guidelines on a regular basis. They shall report to the Trustees on a timely basis any violations, exceptions, required reports, and/or requests made by the investment managers with respect to the stated policies.

In accordance with these guidelines, investments are reported at fair value. Temporary cash investments are reported at cost, which approximates fair value. Each advisor has been apportioned funds assuming that they will be fully invested in his assigned sector with no more than 5-10% in cash equivalents. Securities traded on national or international exchanges are valued at

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
NOTES TO FINANCIAL STATEMENTS
June 30, 2018

quoted market prices as of the date of the statement of fiduciary net position. The fair value of the real estate investment and the real estate - timberland investment is based on an independent appraisal.

Based on an asset allocation study completed in 2015, the Trustees implemented the following asset deployment (based upon market value) to best achieve the long term goals of the ERS in terms of compound total rate of return and assumed risk:

Domestic Equities	30%
Bonds	30%
International Equities	10%
Emerging Markets	10%
Real Estate	10%
Real Estate – Timber	5%
Private Equity	5%

This target mix has been chosen for the aggregate total portfolio. From time to time, the actual mix will fluctuate based on market conditions, performance, and cash flow considerations. However, it is desired that the fluctuations be kept to a minimum. From time to time, the Trustees may redeploy assets among the managers to balance the portfolio in accordance with the above target. As the portfolio grows, additional specialties may be used in addition to the ones above. The aggregation of domestic and international equities will be considered as part of the total equity allocation and real estate will be considered as part of the bond allocation for these purposes.

For the year ended June 30, 2018, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, was 6.83%. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

Fair Value Measurements

The ERS categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset and are described as follows.

- Level 1 inputs are quoted prices in active markets for identical assets;
- Level 2 inputs are significant other observable inputs;
- Level 3 inputs are significant unobservable inputs.

The ERS categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles.

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
NOTES TO FINANCIAL STATEMENTS
June 30, 2018

The ERS has the following recurring fair value measurements as of June 30, 2018:

	<u>6/30/2018</u>	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>
Investments by fair value level				
Equity securities				
Domestic equity	\$ 109,203,049	\$ 109,203,049	\$	\$
International equity	30,276,126	30,276,126		
Total equity securities	<u>139,479,175</u>	<u>139,479,175</u>		
Debt securities				
Corporate bonds	47,879,028		47,879,028	
U.S. Government bond funds	18,263,122		18,263,122	
Collateralized mortgage obligation	393,115		393,115	
Total debt securities	<u>66,535,265</u>		<u>66,535,265</u>	
Total investments by fair value level	\$ <u>206,014,440</u>	\$ <u>139,479,175</u>	\$ <u>66,535,265</u>	\$
Investments measured at the net asset value (NAV)				
Real Estate				
Real estate funds	\$ 33,792,811			
Real estate funds - timberland	5,350,914			
Total real estate funds	<u>39,143,725</u>			
Private Equity				
Private equity funds	7,240,441			
Total investments measured at NAV	<u>46,384,166</u>			
Total investments measured at fair value	\$ <u>252,398,606</u>			

Equity securities classified in Level 1 of the fair value hierarchy are valued using prices quoted in active markets for those securities.

Government bonds, corporate bonds, and collateralized mortgage obligations classified in Level 2 of the fair value hierarchy are valued on the basis of evaluated prices provided by independent pricing services when such prices are believed to reflect the fair value of such securities. Such prices may be determined by taking into account a security's price, yield, maturity, call feature, rating, institutional-size trading in similar groups of securities and developments related to specific securities.

Investments Measured at the NAV

The valuation method for investments measured at the net asset value (NAV) per share (or its equivalent) is presented on the following table.

	<u>Fair Value</u>	<u>Unfunded Commitments</u>	<u>Redemption Frequency (If currently eligible)</u>	<u>Redemption notice period</u>
Real estate funds	\$ 33,792,811	\$	Not eligible	N/A
Real estate funds - timberland	5,350,914		Not eligible	N/A
Private equity funds	7,240,441	4,328,927	Not eligible	N/A
Total investments measured at the NAV	\$ <u>46,384,166</u>	\$ <u>4,328,927</u>		

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
NOTES TO FINANCIAL STATEMENTS
June 30, 2018

Real estate funds. This type includes open-end diversified core real estate commingled funds which primarily invests in institutional quality industrial, multi-family, office and retail properties located throughout the US. The fair values of the investments have been determined using NAV per share (or its equivalent) based on valuations from the fund managers using appraisals from independent appraisers, using various valuation methods, including the income approach, cost basis approach and discounted cash flow method. In most cases, a combination of these methods is used.

Real estate funds – timberland. This type includes two funds which were established to invest and reinvest assets of members primarily in interests in real property, which is to be timberland and timber; contracts or agreements for the cutting and/or use of timber on timberland; and in such other assets as deemed appropriate to establish proper portions of liquid assets for the Funds. The fair values of the investments have been determined using NAV per share (or its equivalent) based on valuations from the fund managers which uses appraisals from independent appraisers which determine the value using cost approach, sales comparison approach or income approach.

Private equity funds. This type includes three closed-end commingled funds that take private ownership of companies. The fair values of the investments have been determined using the NAV per share (or its equivalent) of the ERS's ownership interest in partners' capital. All of the investments are generally considered to be illiquid investments. Distributions from each fund will be received as the underlying investments of the funds are liquidated. It is expected that the underlying assets of the funds will have a life from six to twelve years from inception. It is also possible for the investments to be sold in the secondary market.

Interest Rate Risk

The ERS had the following investments subject to interest rate risk as of June 30, 2018:

Investment Type	Fair Value	Investment Maturities (in years)			
		Less than 1	1 – 6	6 – 10	More than 10
Non-government backed CMOs	\$ 393,115	\$ -	\$ -	\$ -	\$ 393,115
		<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 393,115</u>
Temporary cash investments—maturity not determined	2,744,199				
Bond funds—maturity not determined	<u>66,142,150</u>				
Total – subject to interest rate risk	<u>\$ 69,279,464</u>				

Market or interest rate risk is the risk that interest rate changes will adversely affect the value of a debt security, because the price of a debt security typically moves in the opposite direction of the change in market interest rates.

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
NOTES TO FINANCIAL STATEMENTS
June 30, 2018

The ERS does not have a formal investment policy that limits investment maturities as a means of managing its exposure to potential fair value losses arising from future changes in interest rates.

Credit Risk

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. The ERS's formal investment policy requires a minimum rating of A by Standard and Poor's for any corporate bond.

The ERS's exposure to credit risk as of June 30, 2018 is as follows:

Investment Type / Rating	D	U.S Government Guaranteed	Not rated	Total
Non-Government Backed CMOS	\$ -	\$ -	\$ 393,115	\$ 393,115
Government Bond Funds	-	18,263,122	-	18,263,122
Corporate Bond Funds	-	-	47,879,028	47,879,028
Short-term Investments	-	-	2,744,199	2,744,199
Total	\$ -	\$ 18,263,122	\$ 51,016,342	\$ 69,279,464

Concentration of Credit Risk

The ERS's formal policy limits investments in any corporate entity to 5% of the outstanding shares in a company or 15 times the average daily trading volume for that stock. The policy prohibits any one corporate bond holding from exceeding 10% of the portfolio, at market value. The policy also limits total bond holdings in any corporation to 10% of the long-term indebtedness of that corporation. The ERS did not have any single investment over 5% of the total investments of the system.

Foreign Currency Risk

All foreign investments are valued in United States dollars. The asset allocation policy of the ERS allows the managers to invest in equity securities of any developed country provided that no more than 20% of the total assets are in any one developed country except Japan where the maximum is 25%.

Unfunded Commitments

The ERS had non-marketable alternative investments that have associated unfunded commitments at June 30, 2018. These investments were in private equity funds, which had a fair value of \$7,240,441 and unfunded commitments of \$4,328,927 at June 30, 2018.

Unfunded commitments are drawn down throughout the life of the investment based on the cash needs of each individual limited partnership or real estate manager. Limited partnerships with unfunded commitments generally have remaining lives of 4 to 10 years.

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
NOTES TO FINANCIAL STATEMENTS
June 30, 2018

6. Contribution Information

Contributions made by the City on behalf of active members are established by the City of Danville, based on actuarial estimates (performed annually on July 1) of future plan benefits to be paid. Since March 1, 1979, employees' contributions have been paid by the City. Contributions for employees hired after September 30, 1991 are considered to be 100% City contributions. These contributions, like the City's portion of pre-October 1, 1991 employees, vest after five years of creditable service. The annuity contribution rate made on behalf of active members is currently 5% of compensation for general employees and 6.5% of compensation for public safety employees.

The portion of contributions to the plan made by the City on behalf of members vests immediately with the employees. The remainder of the contributions vests after five years of creditable service.

For the year ended June 30, 2018, the City's total payroll for all employees was \$52,859,567 and the City's total covered payroll amounted to \$43,151,947, of which \$30,593,146 was for general employees and \$12,558,801 was for public safety employees. Covered payroll refers to all compensation paid by the City to active employees covered by the ERS on which contributions to the plan are based.

Contributions to the pension plan are determined on an actuarial basis using the entry age normal method. Under this method, actuarial gains or losses are reflected immediately through a change in the unfunded actuarial accrued liability. Normal cost is funded on a current basis. The unfunded actuarial accrued liability is funded over a 30-year period. Periodic contributions are on the level percentage of payroll method. The funding strategy for normal cost and the unfunded actuarial accrued liability should provide sufficient resources to pay employee pension benefits on a timely basis.

Total contributions to the pension plan for the year ended June 30, 2018 amounted to \$3,276,604, of which \$427,027 was made by the City on behalf of its employees. The contributed amounts were based on a percentage of actuarially determined amounts as described above and were based on an actuarial valuation for the prior period. The total pension contributions represent funding for normal cost. Contributions made by the City represent 7.0% of covered payroll for the year, and includes amounts paid on behalf of employees.

A variety of significant actuarial assumptions are used to determine the pension contribution requirements. These assumptions are summarized below:

- a. The present value of future pension payments was computed by using a discount rate of 7.0%, compounded annually. The discount rate is equal to the estimated long-term rate of return on current and future investments of the pension plan.
- b. Future pension payments reflect an assumption of a 2.75% salary increase attributable to inflation. For general employees an increase of 3% is attributable to seniority/merit for the first 15 years of service and then 1% per year. For public safety employees an increase of 2.5% is attributable to seniority/merit for all years. The percentage increases are compounded annually, for both general and public safety employees.
- c. An annual cost-of-living adjustment of 0% per year is assumed. In December 2012, Danville City Council approved an ordinance amending the Code of the City of Danville, Virginia to state that retirees will no longer receive cost-of-living adjustments.

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
NOTES TO FINANCIAL STATEMENTS
June 30, 2018

- d. The RP-2000 Mortality Table, with one year set back for males and one year set forward for females, is used to determine the rate of mortality for healthy lives. The RP-2000 Mortality Table For Disabled Lives is used to determine mortality for disabled lives.
- e. The rate of disability for general employees is 300% of the United Auto Workers Disability rates. The rate for public safety employees is 400%.
- f. It is assumed that general employees will retire by the age of 70 and that public safety employees will retire by the age of 65. The probability of early retirement is considered for general employees between the ages of 55 and 70 and for public safety employees between the ages of 55 and 65.
- g. For the purpose of valuing death benefits, all male employees are assumed to be married to a spouse three years younger, and all females are assumed to be married to a spouse three years older.
- h. For purposes of determining projected benefits payable from member contributions, those contributions are assumed to earn 5% compounded annually.

7. Soft Dollar Transactions

Portfolio managers for the ERS reported there were approximately \$244,309 soft dollar transaction commissions (as defined by the Code of VA Section 51.1-1000) for the year ended June 30, 2018 and \$266,303 for the year ended June 30, 2017.

8. Plan Termination

The Employees' Retirement System of the City of Danville, Virginia is administered in accordance with the provisions of the Code of the City of Danville, 1962, as amended by Section 32.1. Should the retirement plan be terminated, or contributions to the plan be completely discontinued, the rights of each member to benefits accrued to the date of such termination or discontinuance, to the extent then funded, or the rights of each member to the amounts credited to his account at such time, are nonforfeitable.

9. Tax Status of Plan

All plan changes to the ERS are reviewed by the actuaries and based on this review, management believes the ERS's plan to be qualified under Section 401 of the Internal Revenue Code and the trust to be exempt from income tax on related business income under Section 501 (a).

10. Risk Management

The ERS is exposed to various risks of loss related to torts; theft of, damage to, and destruction of assets; errors and omissions; injuries to employees; and natural disasters.

For all other risks of loss, the ERS participates in the City of Danville, Virginia's insurance coverage. The fleet insurance, public official and commercial general liability insurance is provided under a pooled agreement with the Virginia Municipal Liability Pool (a public entity risk pool). The pool has paid policy dividends on a regular basis. If the pool should be in a deficit condition, it may levy an

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
NOTES TO FINANCIAL STATEMENTS
June 30, 2018

additional pro-rata assessment to members of the pool, which may not exceed twice the members' annual contributions. In each of the past three years, there have been no settlements that exceeded insurance coverage.

11. Risks and Uncertainties

The Plan invests in various investment securities. Investment securities are exposed to various risks, such as interest rate, market and credit risks. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of investment securities will occur in the near term and such changes could materially affect the amounts reported in the statements of net position available for benefits.

Plan contributions are made and the actuarial present value of accumulated plan benefits are reported based on certain assumptions pertaining to interest rates and employee demographics, all of which are subject to change. Due to uncertainties inherent in the estimations and assumptions process, it is at least reasonably possible that changes in these estimates and assumptions in the near term would be material to the financial statements.

12. Net Pension Liability (Asset) of the City

The components of the net pension liability (asset) at June 30, 2018 are as follows:

Total pension liability	\$ 230,515,365
Plan fiduciary net position	<u>255,062,885</u>
City's net pension liability (asset)	<u>(24,547,520)</u>
 Plan fiduciary net position as a percentage of the total pension liability	 110.6%

Actuarial assumptions. The total pension liability was determined by an actuarial valuation as of July 1, 2017, using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	2.75%
Salary increases	General: 5.75% for the first 15 years; 3.75% after Police and Fire: 5.25%, including inflation
Investment rate of return	7.00%, net of investment expense, including inflation
Cost-of-living adjustments	None assumed

Mortality rates were based on the RP-2000 Mortality Table with one year setback for males and one year setback for females projected to 2025 using Scale BB.

The actuarial assumptions used in the July 1, 2017 valuation were based on the results of an actuarial experience analysis during the 2011 to 2015 time period.

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
NOTES TO FINANCIAL STATEMENTS
June 30, 2018

Long-term expected rate of return. The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. This is then modified through a Monte-Carlo simulation process, by which a downward risk adjustment is applied to the baseline expected return. Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of June 30, 2018 (see the discussion of the pension plan's investment policy) and the final investment return assumption are summarized in the following table:

<u>Asset Class</u>	<u>Long-Term Expected Real Rate of Return</u>	<u>Target Allocation</u>
Domestic equity	5.70%	40.00%
International equity	5.85%	10.00%
Fixed Income – U.S. Investment Grade	2.70%	30.00%
Real estate	4.25%	10.00%
Private equity/Timber	5.45%	10.00%
Cash Equivalents	0.80%	0.00%
Total weighted average real return	4.65%	
Plus inflation	2.75%	
Total return without adjustment	7.40%	
Risk adjustment	(0.40%)	
Total expected return	7.00%	

Discount rate. The discount rate used to measure the total pension liability was 7.00%. The projection of cash flows used to determine the discount rate assumed that City contributions will be made at rates equal to the actuarially determined contribution rates. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the net pension liability (asset) to changes in the discount rate. The following presents the net pension liability (asset) of the City, calculated using the discount rate of 7.00%, as well as what the City's net pension liability would be if it were calculated using a discount rate that is 1.00% lower (6.00%) or 1.00% higher (8.00%) than the current rate:

	<u>1% Decrease (6.00%)</u>	<u>Current Discount Rate (7.00%)</u>	<u>1% Increase (8.00%)</u>
City's net pension liability (asset)	\$ 1,499,450	(\$ 24,547,520)	(\$ 46,574,951)

**REQUIRED
SUPPLEMENTARY INFORMATION
SECTION**



EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
SCHEDULE OF CHANGES IN THE CITY'S NET PENSION LIABILITY AND RELATED RATIOS
Year Ended June 30, 2018

	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
Total pension liability					
Service cost	\$ 3,141,494	\$ 3,259,683	\$ 3,400,557	\$ 4,089,278	\$ 4,043,431
Interest	12,480,764	12,984,495	13,747,123	14,637,265	15,757,522
Changes of benefit terms	-	-	-	-	5,636,323
Differences between expected and actual experience	-	2,432,640	6,118,120	1,681,266	256,406
Changes of assumptions	-	-	-	5,105,391	-
Benefit payments, including refunds of member contributions	(10,380,124)	(11,594,274)	(11,623,173)	(12,200,073)	(12,716,164)
Net change in total pension liability	<u>5,242,134</u>	<u>7,082,544</u>	<u>11,642,627</u>	<u>13,313,127</u>	<u>12,977,518</u>
Total pension liability - beginning	<u>180,257,415</u>	<u>185,499,549</u>	<u>192,582,093</u>	<u>204,224,720</u>	<u>217,537,847</u>
Total pension liability - ending (a)	<u>\$ 185,499,549</u>	<u>\$ 192,582,093</u>	<u>\$ 204,224,720</u>	<u>\$ 217,537,847</u>	<u>\$ 230,515,365</u>
Plan fiduciary net position					
Employer contributions	\$ 5,849,278	\$ 3,998,392	\$ 2,937,843	\$ 2,857,851	\$ 3,276,604
Net investment income	38,756,248	5,204,202	645,251	25,415,340	16,591,447
Benefit payments, including refunds of member contributions	(10,380,124)	(11,594,274)	(11,623,173)	(12,200,073)	(12,716,164)
Administrative expenses	(109,411)	(143,714)	(125,428)	(111,095)	(86,905)
Other	-	-	-	-	-
Net change in plan fiduciary net position	<u>34,115,991</u>	<u>(2,535,394)</u>	<u>(8,165,507)</u>	<u>15,962,023</u>	<u>7,064,982</u>
Plan fiduciary net position - beginning	<u>208,620,790</u>	<u>242,736,781</u>	<u>240,201,387</u>	<u>232,035,880</u>	<u>247,997,903</u>
Plan fiduciary net position - ending (b)	<u>\$ 242,736,781</u>	<u>\$ 240,201,387</u>	<u>\$ 232,035,880</u>	<u>\$ 247,997,903</u>	<u>\$ 255,062,885</u>
City's net pension liability (asset) - ending (a) - (b)	<u>\$ (57,237,232)</u>	<u>\$ (47,619,294)</u>	<u>\$ (27,811,160)</u>	<u>\$ (30,460,056)</u>	<u>\$ (24,547,520)</u>
Plan fiduciary net position as a percentage of the total pension liability (asset)	130.9%	124.7%	113.6%	114.0%	110.6%
Covered payroll	\$ 38,027,568	\$ 39,745,625	\$ 42,444,501	\$ 43,309,556	\$ 43,151,947
City's net pension liability (asset) as a percentage of covered payroll	-150.5%	-119.8%	-65.5%	-70.3%	-56.9%

See Notes to Required Supplementary Information on page 35.

This was a new schedule required to be presented beginning in fiscal year 2014 by Governmental Accounting Standards Board Statement No. 67. Data is not readily available for the fiscal years preceding fiscal year 2014 and is, therefore, not presented. As data is accumulated in the following years, it will be presented here in a schedule of the last ten fiscal years.

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
SCHEDULE OF CITY CONTRIBUTIONS
Year Ended June 30, 2018

	<u>2014</u>	<u>2015 *</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
Actuarially determined contribution	\$ 6,228,799	\$ 3,583,779	\$ 2,937,843	\$ 2,857,851	\$ 4,078,291
Contributions in relation to the actuarially determined contribution	5,849,278	3,998,392	2,937,843	2,857,851	3,276,604
Contribution (deficiency) / excess	<u>\$ (379,521)</u>	<u>\$ 414,613</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ (801,687)</u>
Covered payroll	\$ 38,027,568	\$ 39,745,625	\$ 42,444,501	\$ 43,309,556	\$ 43,151,947
Contributions as a percentage of covered payroll	15.38%	10.06%	6.92%	6.60%	7.59%

See Notes to Required Supplementary Information.

* The excess contribution in 2015 is due to an additional contribution sent from the City of \$414,613 to fund one-time retiree bonuses awarded during the fiscal year.

This was a new schedule required to be presented beginning in fiscal year 2014 by Governmental Accounting Standards Board Statement No. 67. Data is not readily available for the fiscal years preceding fiscal year 2014 and is, therefore, not presented. As data is accumulated in the following years, it will be presented here in a schedule of the last ten fiscal years.

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
SCHEDULE OF INVESTMENT RETURNS
Year Ended June 30, 2018

	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
Annual money-weighted rate of return, net of investment expense	19.0%	2.2%	0.45%	11.39%	6.83%

This was a new schedule required to be presented beginning in fiscal year 2014 by Governmental Accounting Standards Board Statement No. 67. Data is not readily available for the fiscal years preceding fiscal year 2014 and is, therefore, not presented. As data is accumulated in the following years, it will be presented here in a schedule of the last ten fiscal years.

Notes to Required Supplementary Information:

Valuation date:

Actuarially determined contribution rates are calculated as of July 1, two years prior to the end of the fiscal year in which contributions are reported.

Methods and assumptions used to determine contribution rates (these have changed from the prior year):

Actuarial cost method	Entry age normal
Amortization method	Level percentage of payroll
Remaining amortization period	30 years
Asset valuation method	Five-year moving average
Inflation	2.75%
Salary increases	General Employees: 5.75% per year for the first 15 years of service, then 3.75% per year, including inflation Police and Fire Employees: 5.25%, including inflation
Investment rate of return	7.00%
Retirement age - general employees	3% at age 55 increasing to 100% at age 70+
Retirement age - police and fire employees	5% at age 55 increasing to 100% at age 65
Mortality	RP-2000 Mortality Tables, with one year setback for males and one year set forward for females, projected to 2025 using Scale BB For pre-retirement deaths, 75% of these rates are used. For disabled members, the RP 2000 Disabled tables are used.



SUPPLEMENTARY INFORMATION

SECTION

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
SCHEDULES OF EXPENSES
Year Ended June 30, 2018

SCHEDULE OF INVESTMENT EXPENSES

Investment management services	\$ 691,760
Investment consultant services	62,500
Investment custodial services	<u>42,640</u>
Total investment expenses	<u>\$ 796,900</u>

SCHEDULE OF ADMINISTRATIVE EXPENSES

Staff salaries	\$ 26,065
Payments to consultants	30,716
General liability insurance	17,658
Employer's retirement contributions	1,996
Postage	5,424
Office supplies	1,137
Employer's social security	1,949
Printing and publications	<u>1,960</u>
Total administrative expenses	<u>\$ 86,905</u>

SCHEDULE OF PAYMENTS TO CONSULTANTS

<u>Firm</u>	<u>Fee</u>	<u>Service</u>
Boomershine Consulting	\$ 18,861	Actuary
Brown, Edwards and Company, LLP	10,900	Audit
Various doctors	<u>955</u>	Medical
Total payments to consultants	<u>\$ 30,716</u>	

INVESTMENT SECTION





October 4, 2018

Board of Trustees
City of Danville, Virginia Employees' Retirement System
418 Patton Street, 3rd floor
Danville, Virginia 24543

Ladies and Gentlemen:

The City of Danville Virginia Employees' Retirement System was created to provide retirement benefits for those employees who have earned a pension from the City. The Trustees, to set up the plan in a prudent manner, have issued policy and guidelines for their advisors. Under these guidelines the System can invest in common and preferred stocks traded on any major exchanges, U.S. Government or agency issued bonds, corporate bonds rated A or better at the time of purchase, commercial paper rated A1-P1, mortgage and asset backed securities including collateralized mortgage obligations limited to unleveraged priority or sequential pay tranches and subject to the quality rating limitations for all debt securities, Rule 144-A corporate bonds rated A or better at the time of purchase with the rights of registration attached. International investment managers may purchase international equity securities in ADR form or in direct form. Additionally, private equity investments in domestic companies, direct real estate and timber are permitted.

To maintain a diversified plan, the Trustees have set forth certain limitations in the policy and guidelines document. The maximum of total bond holdings in any one corporation should not exceed 10% of the long-term indebtedness of that corporation. Managers should advise the Trustees if an equity holding exceeds 15% of the advisor's portfolio. International managers may invest no more than 25% of total assets in any one developed country. A maximum of 15% of the portfolio can be in emerging market countries. No more than 5% of the assets should be in any one company without prior written approval. Investment advisors should not hold for their accounts in aggregate more than 5% of the outstanding shares of a company.

The System is well diversified by security, by asset class, by investment manager and investment manager style. Current policy allows for a target investment in domestic equities of 30%, international equities of 10%, emerging markets of 10%, real estate 10%, timber 5%, private equity 5%, and bonds of 30%.

The Trustees have engaged Dahab Associates, Inc. to calculate and monitor the returns on a regular basis. We have calculated the rates of return from monthly statements provided by the custodian bank. The returns are reported gross of management and custodian fees, but net of transaction costs. All return calculations are monthly and time weighted, and meet or exceed industry-standard methodology put forth by the Bank Administration Institute.

In the fiscal year ending June 30, 2018, the fund earned 7.4% gross of fees. For the three and five year annualized periods, the System has earned 6.7% and 8.4% gross of fees respectively. For the longer ten-year and twenty-year period, per annum, the System earned a return of 6.25% and 6.21% gross of fees respectively. This return does not include some investments in private equity which report on a lagged basis. Risk characteristics for the portfolio and its components are calculated quarterly using appropriate statistical methodologies.

Respectfully,

A handwritten signature in black ink, appearing to read 'Richard E. Dahab', with a stylized, looping flourish at the end.

Richard E. Dahab, CFA
Chairman

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
OUTLINE OF INVESTMENT POLICIES
June 30, 2018

General

The purpose of the fund is to provide for the accumulation of money in an actuarially sound fashion so that burden on the taxpayers will be spread over the employees' service. The investment policies are designed to set forth the policies and guidelines for those who administer and invest the funds in the portfolio.

Overall Goal

The compound rate of return (net of fees) over a long period of 7.0%.

A real rate of return of at least 2% above the average rate of inflation as measured by the Consumer Price Index over a four-year period.

Asset Allocation

Based upon market value

	<u>Actual</u>	<u>Target</u>
Domestic Equities	31 %	30 %
International Equities	12 %	10 %
Emerging Markets	12 %	10 %
Bonds	26 %	30 %
Real Estate	13 %	10 %
Real Estate – Timber	2 %	5 %
Private Equity	3 %	5 %
Cash	1 %	- %

Each advisor is apportioned funds in his assigned sector and may have no more than 10% in cash equivalents. If an advisor feels there are insufficient investment opportunities within his style of investing because of current market conditions and these conditions will exist for more than a calendar quarter, he should notify the Trustees. At their discretion, the manager may be granted the option of holding a significant percentage of assets in cash equivalents or they may choose to redeploy the un-invested funds temporarily until the advisor wishes to invest them.

Investment Program

Each advisor has been hired to invest according to a philosophy and/or investment program he has proposed. Unless otherwise limited by statute or by the requirements set forth herein, the manager has full discretion to execute his stated philosophy. The advisor is not expected to deviate from that philosophy without the express consent of the Trustees.

Specific parameters are established, for the quality and type of investments, which may be purchased within each sector of investments. To service diversification, other guidelines are established so the investment of the system will not represent a significant position in any company's outstanding stock or bonds. No diversification is needed for U.S. government or agency funds.

Each advisor is authorized to vote proxies in a manner deemed to be in the best interest of participants in the System unless specific direction is provided by the Trustees.

Monitoring Performance

The Board of Trustees, with the assistance of an investment consultant, reviews the performance of the investment advisors and systematically meets on a quarterly basis to review and evaluate performance.

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
INVESTMENT RESULTS
June 30, 2018

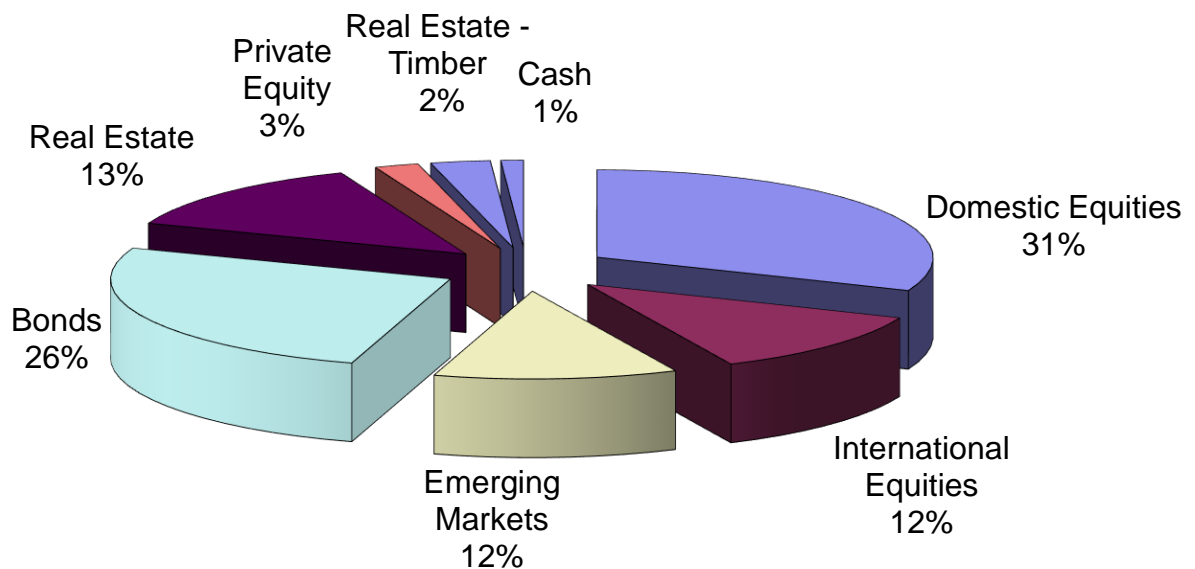
The following schedule compares rates of return for the ERS portfolio with appropriate benchmark indices. The ERS rate of return is gross of fees and is time-weighted to eliminate the influence of contributions and withdrawals which are not controlled by investment managers. It is generally accepted as a useful method of comparing the performance of various fund managers since it measures factors within their control.

	Current Year 6/30/2018	Annualized 3 - Year	Annualized 5 - Year
ERS Total Portfolio - Gross	7.40 %	6.70 %	8.40 %
ERS Domestic Equity Segment	13.50 %	11.50 %	13.20 %
S & P 500 Index	14.40 %	11.90 %	13.40 %
Russell 3000 Index	14.80 %	11.60 %	13.30 %
Russell 1000 Growth Index	22.50 %	15.00 %	16.40 %
Russell 1000 Value Index	6.80 %	8.20 %	10.30 %
ERS International Equity Segment	10.30 %	6.10 %	7.50 %
MSCI EAFE Index	7.40 %	5.40 %	6.90 %
ERS Emerging Markets Equity Segment	1.20 %	4.70 %	3.80 %
MSCI Emerging Markets Index	8.60 %	6.00 %	5.40 %
ERS Fixed Income Segment*	-0.50 %	1.00 %	1.90 %
Barclays Aggregate Bond Index	-0.40 %	1.70 %	2.30 %
1 - 3 Year Treasury	0.00 %	0.40 %	0.60 %
ERS Real Estate - Timber Segment	1.60 %	0.10 %	0.30 %
NCREIF Timber Index	3.60 %	3.40 %	6.00 %
ERS Real Estate Segment	9.50 %	0.00 %	0.00 %
NCREIF ODCE Index	8.40 %	9.40 %	11.00 %
ERS Private Equity Segment	13.00 %	11.30 %	11.40 %
Cambridge Private Equity Index	12.20 %	10.60 %	12.50 %

* Includes Government and Agency Issues

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
ASSET ALLOCATION
June 30, 2018

Asset Allocation



■ Domestic Equities	■ International Equities	■ Emerging Markets	■ Bonds
■ Real Estate	■ Real Estate - Timber	■ Private Equity	■ Cash

	<u>Value</u>	<u>Percent</u>
Domestic Equities	\$ 79,669,834	31%
International Equities	30,276,126	12%
Emerging Markets	29,533,215	12%
Bonds	66,535,265	26%
Real Estate	33,792,811	13%
Real Estate - Timber	5,350,914	2%
Private Equity	7,240,441	3%
Cash	2,744,199	1%
Totals	<u>\$ 255,142,805</u>	<u>100%</u>

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
LIST OF LARGEST ASSETS HELD
Year Ended June 30, 2018

Largest Stock Holdings (By Fair Value)

	Shares	Stock	Fair Value
1)	11,927	JP Morgan Chase & Company	\$ 1,242,793
2)	37,237	Bank of America	1,049,711
3)	7,223	Chevron Corporation	913,204
4)	24,919	AT&T Incorporated	800,149
5)	16,857	Cisco Systems Incorporated	725,357
6)	18,783	Pfizer Inc	681,447
7)	14,281	Oracle Corporation	629,221
8)	5,074	Johnson & Johnson Company	615,679
9)	11,854	Verizon Communications	596,375
10)	5,772	Microsoft Corporation	569,177

Largest Bond Holdings (By Fair Value)

	Par	Bonds	Fair Value
1) \$	14,314,895	CF Panagora BD Index Fund GT	\$ 47,879,028
2)	176,592	Northern Trust Collective Short Term Government Bond Index Fund	18,263,122
3)	61,667	Commercial Mortgage-Backed WAMU Mtg Pass-thru CTFS Ser 2007	56,536
4)	56,878	Commercial Mortgage-Backed Master Adj Rate Mtgs Tr 2007	51,769
5)	46,573	Commercial Mortgage-Backed CHL Mtg Pass-thru Tr 2007	45,255
6)	47,426	Commercial Mortgage-Backed WAMU Mtg Pass-thru CTFS Ser 2007 CI 2	43,779
7)	78,801	Commercial Mortgage-Backed Alternative Ln Tr 2006	43,753
8)	54,426	Commercial Mortgage-Backed Citigroup Mtg Ln Tr Ser 2005	43,728
9)	66,776	Commercial Mortgage-Backed Alternative Resecuritization 2017	33,555
10)	35,607	Commercial Mortgage-Backed WAMU Mtg Pass-thru CTFS Ser 2006	32,775

A complete list of portfolio holdings is available upon request.

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
SCHEDULE OF FEES AND COMMISSIONS
Year Ended June 30, 2018

	Assets Under Management at 6/30/18 (at Fair Value)	Fees And Commissions Paid
INVESTMENT MANAGERS' FEES		
<u>Equity Managers</u>		
Rothschild Asset Management, Inc.	\$ 31,866,537	\$ 164,012
Loomis, Sayles and Company, L.P.	29,655,334	136,286
Northern Trust Asset Management	18,263,122	14,608
Lazard Asset Management	42,141,419	319,862
HGK Asset Management	17,667,922	
Hamilton Lane	7,240,441	
<u>Mutual Fund Manager</u>		
PanAgora Asset Management, Inc.	66,420,106	51,276
<u>Real Estate Managers</u>		
BTG Pactual Timberland Investment Group, LLC	5,350,914	5,716
American Realty Advisors	19,521,697	
Intercontinental Real Estate Corporation	14,271,114	
Total investment managers' fees		<u>\$ 691,760</u>
OTHER INVESTMENT SERVICE FEES		
<u>Investment Custodian</u>		
The Northern Trust Company		\$ 42,640
<u>Investment Consultant</u>		
Dahab Associates, Inc.		<u>62,500</u>
Total other investment service fees		<u>\$ 105,140</u>
Total investment expense		<u>\$ 796,900</u>

BOARD OF TRUSTEES

The members of the Board of Trustees serve without compensation.

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
SCHEDULE OF COMMISSIONS
Year Ended June 30, 2018

<u>Brokerage Firm</u>	<u>Number of Shares Traded</u>	<u>Total Commissions</u>	<u>Commissions per Share</u>
Jefferies LLC	57,523	\$ 2,301	\$ 0.040
* Other Commissions	<u>6,843,370</u>	<u>10,363</u>	0.002
Total Commissions	<u>6,900,893</u>	<u>\$ 12,664</u>	

* Other commissions includes all brokers with total commissions less than \$2,000 for the fiscal year end.

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
INVESTMENT SUMMARY
Year Ended June 30, 2018

<u>Type of Investment</u>	<u>Fair Value</u>	<u>Percent of total Fair Value</u>
Fixed Income:		
Corporate Bonds	\$ 48,272,143	18.92%
U.S. Government Bonds	18,263,122	7.16%
Total Fixed Income	66,535,265	26.07%
Common Stock:		
Equity Index Fund	77,336,512	30.31%
Foreign	30,276,126	11.87%
Financials	7,706,440	3.02%
Health Care	4,750,988	1.86%
Industrials	3,350,495	1.31%
Information Technology	2,757,796	1.08%
Energy	3,717,577	1.46%
Consumer Discretionary	1,238,345	0.49%
Miscellaneous	517,430	0.20%
Utilities	1,642,551	0.64%
Consumer Staples	1,501,156	0.59%
Materials	893,684	0.35%
Real Estate	1,342,748	0.53%
Telecommunication Services	2,447,327	0.96%
Total Common Stock	139,479,175	54.67%
Alternative Investments:		
Real Estate	33,792,811	13.24%
Timberland	5,350,914	2.10%
Private Equity	7,240,441	2.84%
Total Alternative Investments	46,384,166	18.18%
Short-term Investments:		
Cash and Cash Equivalents	2,744,199	1.08%
Total investments	\$ 255,142,805	100.00%



ACTUARIAL SECTION

November 2, 2018

Board of Trustees
Employees' Retirement System of the City of Danville
Danville, Virginia

Dear Board Members:

We respectfully present in this report the results of our actuarial valuation. Actuarial valuations of the Employees' Retirement System of the City of Danville are performed annually. The results of the latest actuarial valuation of the Retirement System, prepared as of July 1, 2018, are presented in this report.

The purpose of this report is to provide the information needed for the funding and contributions for the Employees' Retirement System of the City of Danville (the City), in accordance with actuarial principles and best practices. The accounting report under GASB 67/68 for this plan is sent under separate cover, and serves a different purpose. All the figures presented in this report are to be used for funding purposes.

The valuation reflects the benefits in effect on the valuation date and has been prepared on the basis of the data submitted by the City.

Financing Objective and City's Contribution Rate

The financing objectives of the Retirement System are:

- (a) to fully fund all current costs based on the normal contribution rate payable by the City determined under the funding method; and
- (b) to amortize the unfunded accrued liability, or surplus, based on accrued liability contributions payable by the City.

On the basis of the prior valuation the recommended pension cost of the Retirement System for the fiscal year ending June 30, 2019 would have been based on a total contribution rate of 8.4% of pay.

Effective September 1, 2018, following changes were made to the Policemen and Firemen Plan.

- i. Benefit multiplier increased from 2.0% to 2.2%
- ii. Change in unreduced retirement eligibility from age 55 with 30 years of service to age 50 with 25 years of service.

These changes resulted in an increase in the total contribution rate of 1.7% of pay, and a decrease in the System's funding ratio.

The total actuarial contribution rate from this valuation is 9.1% of pay (9.5% of pay with a 15 years amortization of benefit changes), which represents the normal cost of 9.8% of pay reduced by an amortization of the surplus of 0.7% of pay. This is a net increase of 0.1% (0.5% of pay with a 15-year amortization of the benefit changes) versus the prior valuation. The total rates are 6.315% for general employees, and 15.847% for police and fire (17.089% with a 15-year amortization of benefit changes).

The results of the valuation indicate that the actuarial contributions payable by the City, when taken together with the current assets of the Retirement System, are adequate to fund the actuarial liabilities on account of all benefits payable under the Retirement System. If the actual rate contributed to the Fund by the City is lower than the actuarial rate, this could lead to deterioration of funding over time.

Unfunded Accrued Liability and Funding Progress

The unfunded accrued liability represents the present value of the portion of benefits accrued to the valuation date - with respect to active members, retired members, contingent annuitants in receipt of annual retirement allowances, and terminated members entitled to annual deferred vested allowances, - in excess of the current assets of the Retirement System.

The unfunded accrued liability (surplus) as of July 1, 2018 is (\$4,257,924), including all of the changes outlined above. The ratio of valuation assets to the System's actuarial accrued liability is 101.9%, an increase of 1.5% versus the prior valuation.

Actuarial Assumptions and Methods

The Entry Age Normal method is the actuarial cost method used to determine the System's liability and cost. A change to the method of determining the actuarial value of assets was adopted by the Board of trustees. The change resulted in an increase in valuation assets and a decrease in plan cost of 1.0% of payroll.

A change was also made to the assumed rates of retirement to accompany the changes in benefit eligibility for Policemen and Firemen.

Financial Results and Membership Data

Detailed summaries of the financial results of the valuation and membership data used in preparing the valuation are shown in the exhibits which are presented in Sections 3 and 5 of the report.

Actuarial Certification

Boomershine Consulting Group has conducted an actuarial valuation of this Plan as of July 1, 2018. The employee data and financial information used in this valuation were reviewed, but not audited by us. On the basis of our review, we believe the information to be sufficiently complete and reliable.

The assumptions and methods used for this valuation satisfy the parameters outlined by the Actuarial Standards Board in relevant Actuarial Standards of Practice. In our opinion, each assumption used in

this valuation is reasonable taking into account the experience of the Plan and reasonable expectations. The methods employed in this valuation are consistent with generally accepted actuarial principles and practices.

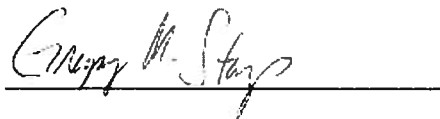
The information as presented in this Actuarial Report for funding purposes fully and fairly discloses the actuarial position of the Plan. All of the schedules presented within this report were prepared by Boomershine Consulting Group, including the following:

- Summary of Principal Plan Provisions
- Valuation Methods and Assumptions
- Schedule of Active Member Valuation Data
- Solvency Test
- Development of Unfunded Actuarial Accrued Liability
- Actuarial Cost and Liability Summary
- Analysis of Financial Experience
- History of Funding Progress

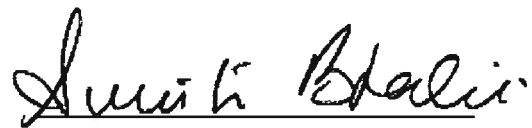
The undersigned are members of the American Academy of Actuaries, and are qualified to render the actuarial opinions presented in this report.

Respectfully Submitted,

BOOMERSHINE CONSULTING GROUP, L.L.C.



Gregory M. Stump, FSA, EA, MAAA, FCA
Chief Actuary



Sunita K. Bhatia, ASA, EA, MAAA, FCA
Senior Consultant/Actuary

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
SUMMARY OF PRINCIPAL PLAN PROVISIONS
June 30, 2018

The following summary describes plan provisions assumed in calculating the cost of your pension plan.

General Information

Original Effective Date: January 1, 1946 as amended through July 1, 2018.

Eligibility

Prior to October 1, 1991, all regular, full-time employees of the City (as defined in the Ordinance) become members of the Retirement System as a condition of continuing employment as of the first day of the calendar month coincident with or next following the completion of one year of continuous service. Any employee on October 1, 1991, who is not a member on October 1, 1991, became a member as of that date; however, an Annuity Savings Account B shall not be established for such an employee until the first day of the calendar month following completion of one year of continuous service. New employees hired after October 1, 1991 shall become members upon the first day of the calendar month coincident with or next following date of employment. No Annuity Savings Account B will be established for new or rehired employees hired after October 1, 1991.

Upon becoming a member, each employee shall be classified as a "General Employee" or as a "Policeman or Fireman" by the Board of Trustees.

Creditable Service

Creditable service shall equal total years of service with the City, including certified service prior to 1946 (known as "prior service"), the one year of service prior to becoming a member of the System, and up to a maximum of one year for accumulated sick leave. However, service will not be credited for service prior to a break in membership.

An employee has a break in his membership if one of the following events occurs:

1. Death
2. Absence from service for any five years out of a six consecutive year period.
3. Retirement
4. Withdrawal of member contributions.

Service will not be interrupted by a period of service in the Armed Forces of the United States under which employment rights are granted.

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
SUMMARY OF PRINCIPAL PLAN PROVISIONS
June 30, 2018

Normal Service Retirement Age

For members hired after December 7, 1999, the normal service retirement age is the later of the age at which the member has five or more years of creditable service or age sixty-five for General Employees and age sixty for Policemen and Firemen. For members hired on December 7, 1999 or earlier, the normal service retirement age is age sixty-five for General Employees and age sixty for Policemen and Firemen.

Any member who has attained his normal service retirement age is retired on a service retirement allowance on the first day of the calendar month following the attainment of such age. Extensions of service beyond normal service retirement age may be granted at the request of the employee's department head, if approved by the City Council.

Service Retirement Allowance

The retirement allowance consists of:

An annuity equal to the amount provided by the contributions of the member at the time he retires, plus

In the case of a General Employee, a pension which, together with his annuity, will provide a total amount equal to $\frac{1}{55}$ of the average final compensation of the member, multiplied by the number of years of his creditable service prior to January 1, 1956 (not counting "prior service"), and 1.42% of the part of such compensation not in excess of \$9,500, plus 1.82% of the part of such compensation in excess of \$9,500 multiplied by the number of years of his creditable service after December 31, 1955. In the case of a Policeman or Fireman, a pension which, together with his annuity, will provide a total amount equal to $\frac{1}{50}$ or 2% of the average final compensation of the member multiplied by the number of years of his creditable service excluding "prior service" (see below). Effective September 1, 2018, Policeman and Fireman, a pension which, together with his annuity, will provide a total amount equal to 2.2% of the average final compensation of the member multiplied by the number of years of his creditable service excluding "prior service".

The allowance of any General Employee who did not elect to reduce his contributions with respect to the first \$4,200 of each year's salary when first eligible to do so is to be increased by the actuarially equivalent value of additional accumulated contributions resulting from not having made such election; the pension of any Policeman or Fireman in service on January 1, 1957, who did not elect to increase his contributions is to be reduced by the actuarial equivalent of the amount by which his accumulated contributions would have been increased had he elected to pay such increased contributions.

If the member has credit for prior service, an additional pension is payable which in the case of a General Employee is to be equal to 1.42% of the part of his average final compensation not in excess of \$9,500, plus 1.82% of the part of such compensation in excess of \$9,500, multiplied by the number of years of such prior service credit. In the case of a Policeman or Fireman, an additional pension is payable equal to $\frac{1}{50}$ of the average final compensation of the member multiplied by the number of years of such prior service credit. Effective September 1, 2018, an additional pension is payable equal to 2.2% of the average final compensation of a Policeman or Fireman multiplied by the number of years of such prior service credit.

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
SUMMARY OF PRINCIPAL PLAN PROVISIONS
June 30, 2018

The minimum pension for any member shall be a pension which, together with his annuity, will provide an amount equal to 1.35% of the average final three-year compensation multiplied by his years of creditable service.

Delayed Retirement

A member may continue in the employment of the City until he files notice of his intention to retire. In such event, he will receive at actual retirement or death a retirement benefit based on compensation and service to his actual retirement date.

Average Final Compensation

"Average Final Compensation" means the member's average earnable compensation during the three consecutive years of creditable service which will produce the highest average, or during all his creditable service if the member has less than three years (five-year average for members retiring or terminating prior to December 7, 1999).

Accrued Benefit

A member's accrued benefit at any time prior to the normal service retirement age is a benefit computed as described in Service Retirement Allowance above based on average compensation and creditable service as of the accrual date. The annuity portion of this benefit is the actuarial equivalent of the member's accumulated contributions, and the pension portion is the difference between the accrued benefit and the annuity.

Early Service Retirement Allowance

After the attainment of age fifty-five and five years of creditable service, a Policeman, Fireman or General Employee may retire early. For a Policeman, Fireman, or General Employee hired on or before December 7, 1999, the member may retire early after attainment of age fifty-five.

The member may receive a monthly benefit for life beginning at his normal service retirement age equal to the accrued benefit at early retirement date. Payments may begin immediately with the benefits reduced for early payment. For a General Employee with less than thirty years of creditable service, the accrued benefit will be reduced by 4.8% times the lesser of the number of years the retirement occurs prior to age sixty-five or thirty minus his years of creditable service. For a Policeman or Fireman, the accrued benefit will be reduced by 2 1/6% times the lesser of the number of years the retirement occurs prior to age sixty or thirty minus years of creditable service. Effective September 1, 2018, the accrued benefit will be reduced by 2 1/6% times the lesser of the number of years the retirement occurs prior to age sixty or twenty five minus years of creditable service for a Policeman or Fireman.

No reduction is applied in the case of any employee with at least thirty years of creditable service. Effective September 1, 2018, no reduction is applied in the case of a General Employee with at least thirty years of creditable service or Policeman or Fireman with at least twenty five years of creditable service.

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
SUMMARY OF PRINCIPAL PLAN PROVISIONS
June 30, 2018

Disability Retirement Benefits

A member who is totally and permanently incapacitated, either mentally or physically, for the further performance of duty and who has completed five years of creditable service may be granted a disability retirement allowance. The allowance begins immediately, and it is equal to the member's accrued benefit computed using modified creditable service and offset by any worker's compensation benefits for which he is eligible. The modified creditable service is equal to the smaller of (1) twice the creditable service to the accrual date (for this purpose, credited service granted based on accumulated sick leave shall not be doubled), or (2) the projected creditable service to age sixty (but in no event less than the creditable service to date). The minimum allowance payable is to be 25% of the member's average final three-year compensation. No such minimum allowance is to exceed 100% of the allowance that would be payable to a General Employee if he continued in service until age sixty-five, earning his final three-year average compensation in all future years. This minimum shall cease to apply to a General Employee when he becomes eligible for unreduced Social Security benefits.

Death Benefit

If an active member who was hired after December 7, 1999 and has five or more years of creditable service should die at any time prior to retirement, a retirement allowance shall be payable to either the spouse, minor child, or parent of the member. If an active member (hired on or before December 7, 1999) should die at any time prior to retirement, a retirement allowance shall be payable to the spouse, minor child or parent of the member. Such retirement allowance shall be continued during the lifetime of such person or in the case of a minor child, until such time as the child dies or attains age of majority.

For an active member who dies prior to attaining age fifty-five, the allowance shall equal one-half of the retirement allowance that would have been payable to the member had the member retired on the day prior to death and had elected to receive a joint and one-half survivor benefit. If the active member dies after attaining age fifty-five, the allowance shall equal the retirement allowance that would have been payable to the member had the member retired on the day prior to death and had elected to receive a joint 100% survivor benefit.

In the case of a member who had not attained age fifty-five at the time of his death, it shall be assumed the member's age at his date of death was fifty-five for the purpose of reducing the benefit on an actuarial equivalent basis.

In the case of a member who dies after attaining age sixty-five, the amount shall equal the deceased retirement allowance that would have been payable to the member had the member retired on the day prior to death and elected to receive a joint and 100% survivor annuity.

The beneficiary may elect to receive the member's accumulated contributions with interest in lieu of any other benefits under the Retirement System.

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
SUMMARY OF PRINCIPAL PLAN PROVISIONS
June 30, 2018

Vested Retirement Allowance

Any member whose service is terminated other than by death or retirement after he has completed five or more years of creditable service may elect to receive a vested retirement allowance in lieu of the return of his contributions. Such deferred vested retirement allowance shall equal his accrued benefit and shall be payable beginning at his normal service retirement age.

Optional Methods of Settlement

A member, upon retirement, may elect to convert the retirement allowance otherwise payable to him into a modified retirement allowance in any one of the following forms. However, if no option is elected, the member will be assumed to have automatically retired under Option 1.

Option 1

An unreduced retirement allowance payable during his life, with the provision that if he dies before he has received in monthly payments of his annuity the amount of his accumulated contributions at the time of his retirement, the balance will be paid to his designated beneficiary or estate.

Option 2

A reduced retirement allowance of equivalent actuarial value to Option 1 payable during his life, with the provision that at his death his allowance will be continued throughout the life of such person as he shall have designated.

Option 3

A reduced retirement allowance of equivalent actuarial value to Option 1 payable during his life, with the provision that at his death one-half of such allowance will be continued throughout the life of such person as he shall have designated.

Option 4

A reduced retirement allowance of equivalent actuarial value to Option 1 payable during his life, with the provision that at his death some other benefit, approved by the Board, will be payable provided that the total of such reduced retirement allowance during his life and the succeeding benefit shall be computed to be of equivalent actuarial value to the retirement allowance that he would have received without optional modification.

Option 5

A retirement allowance of equivalent actuarial value to Option 1 that is greater from retirement age (if less than sixty-five) to age sixty-five, and less following age sixty-five, so that the combined benefits from the Retirement System and Social Security are as level as possible.

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
SUMMARY OF PRINCIPAL PLAN PROVISIONS
June 30, 2018

Optional Methods of Settlement - continued

Lump Sum

If the actuarial equivalent of a benefit due to normal retirement, early retirement, disability, or death is \$10,000 or less at the time the benefit is to commence, a lump sum payment of the actuarial equivalent shall be paid to the member or member's beneficiary in full settlement of benefits from the Plan.

All optional methods of settlement are actuarially equivalent to the normal form of annuity on a unisex basis based on the UP-1984 Mortality Table adjusted for a 20% female content in the participant group and an 80% female content in beneficiaries group and 6% interest.

Contributions

Contributions by City Made on Behalf of Members (Annuity Savings Account B): The Board of Trustees shall determine the portion of earnable compensation to be contributed by the City on behalf of each member hired prior to October 1, 1991 such that each class of employee shall bear a reasonable portion of and have an interest in the total cost of the Retirement System. The Board has set the contribution rate at 5% of earnable compensation for General Employees and 6.5% of earnable compensation for Policemen and Firemen.

Any employee who is first employed (or rehired) by the City after October 1, 1991 shall not be eligible to receive any contributions to an Annuity Savings Account B.

Upon the withdrawal by a member, except by death or retirement, he is paid on demand the sum of the City contributions made on his behalf together with no less than one-half of the interest credited thereon.

Contributions by City: The Danville City Code requires the ERS Board of Trustees to file with the City Manager its certification of the amount of the appropriation necessary to pay the normal and accrued liability for the ensuing fiscal year, as determined in conjunction with the actuary utilized by the ERS. This may be presented to the City Manager as a percentage rate of the City payroll. The City Manager shall report to City Council at the time the budget is presented the amount to be included therein for retirement purposes compared to the ERS Board of Trustees' recommendation. The City makes annual contributions, based on members' earnable compensation, to provide for the pensions and other benefits payable from the contributions of the City. The actuarial cost method used for funding purposes is the same as the method used for financial reporting purposes. See the "Schedule of City Contributions" on page 34 in the Required Supplementary Information section for a schedule of the actuarially determined contributions and the actual City contributions.

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS
June 30, 2018

Valuation Method

The method of valuation used for pension benefits is called the Entry Age Normal Method. Under this method, actuarial gains and losses are reflected immediately through a change in the Unfunded Accrued Liability. However, the impact is amortized over time as part of the actuarially determined contribution.

Valuation of Assets

For the purpose of evaluating the plan, assets are valued by the Five-Year Moving Average method. All assets are placed in a trust fund with the Board of Trustees of the Employees' Retirement System of the City of Danville, Virginia, as trustee. The financial information used in this valuation was not audited by Boomershine Consulting Group.

Employees Included in the Calculations

All regular, full-time employees on the valuation date are included in the calculations. Former employees or their survivors who are entitled to an immediate or deferred benefit under the provisions of the plan as indicated by the employee data are also included.

Actuarial Assumptions

1. Mortality:

Healthy and Disabled Lives	RP-2000 Mortality Tables, with one year set back for males and one year set forward for females, projected to 2025 using Scale BB – The probabilities are illustrated in the tables below. For disabled members, the RP 2000 Disabled tables are used.
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2. Disability:

a. General Employees	300% of United Auto Workers Disability rates. The probabilities are illustrated in the tables below.
b. Police and Firemen	400% of United Auto Workers Disability rates. The probabilities are illustrated in the tables below.

3. Termination: The probabilities are illustrated in the tables below.

4. Salary progression: Salaries are assumed to increase at a rate of 5.75% per year for general employees for the first 15 years of service, then 3.75% and 5.25% for public safety employees for all years, of which 2.75% is attributable to expected inflation. No portion of membership payroll is expected to increase due to growth in the active group size.

5. Investment return: 7.0% compounded annually.

6. Plan expenses: Certain administrative expenses are now being paid from the trust fund. The investment return is assumed to be net of these as well as investment expenses.

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS
June 30, 2018

7. Retirement age:

<u>Age</u>	<u>Probability of Retirement</u>	
	<u>General Employees</u>	<u>Police and Fire</u>
50-54	.000	.100
55	.030	.050
56	.036	.063
57	.043	.078
58	.052	.098
59	.062	.122
60	.075	.153
61	.090	.191
62	.107	.238
63	.129	.298
64	.155	.373
65	.250	1.00
66	.250	1.00
66	.250	1.00
67	.250	1.00
68	.250	1.00
69	.250	1.00
70+	1.00	1.00

8. Future post-retirement cost-of-living increases 0%, effective July 1, 2013

9. The following are examples of the probability that a participant will die, become disabled.

<u>Age</u>	<u>General</u>		<u>Police and Fire</u>	
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
25	.00090	.00150	.00120	.00200
30	.00120	.00018	.00160	.00240
35	.00150	.00240	.00200	.00320
40	.00210	.00300	.00280	.00400
45	.00300	.00450	.00400	.00600
50	.00540	.00780	.00720	.01040
55	.01080	.00147	.01440	.01960
60	.02700	.03630	.03600	.04840
65	.00000	.00000	.00000	.00000

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS
June 30, 2018

10. The following are examples of the probability that a participant will terminate employment.

<u>Years of Service</u>	<u>General</u>				<u>Police and Fire</u>			
	<u>Male</u>		<u>Female</u>		<u>Male</u>		<u>Female</u>	
0	24.0	%	16.8	%	12.0	%	12.0	%
1	20.4	%	14.3	%	11.0	%	11.0	%
2	17.3	%	12.1	%	10.0	%	10.0	%
3	14.7	%	10.3	%	9.0	%	9.0	%
4	12.5	%	8.8	%	8.0	%	8.0	%
5	10.6	%	7.5	%	7.0	%	7.0	%
6	9.1	%	6.3	%	6.0	%	6.0	%
7	7.7	%	5.4	%	5.0	%	5.0	%
8	6.5	%	4.6	%	4.0	%	4.0	%
9	5.6	%	3.9	%	3.0	%	3.0	%
10	4.7	%	3.3	%	2.0	%	2.0	%
11	4.0	%	2.8	%	1.0	%	1.0	%
12	3.4	%	2.4	%	0.0	%	0.0	%
13	2.9	%	2.0	%	0.0	%	0.0	%
14	2.5	%	1.7	%	0.0	%	0.0	%
15	2.1	%	1.5	%	0.0	%	0.0	%
16	1.8	%	1.2	%	0.0	%	0.0	%
17	1.5	%	1.1	%	0.0	%	0.0	%
18	1.3	%	0.9	%	0.0	%	0.0	%
19	1.1	%	0.8	%	0.0	%	0.0	%
20+	0.0	%	0.0	%	0.0	%	0.0	%

Other Considerations

1. For the purpose of valuing death benefits, all male employees are assumed to be married to a spouse three years younger and all females are assumed to be married to a spouse three years older.
2. Employee data supplied to the Actuary by the Employer and financial information supplied to the Actuary by the Plan have not been audited by the Actuary, although the Actuary believes these to be accurate and complete.
3. For purposes of determining projected benefits payable from member contributions, those contributions are assumed to earn 5% interest compounded annually.
4. Actuaries rely on the Employer to inform them of any former participants who have been rehired and lost prior service because of the length of their break in service. These employees may have participation requirements different from other new employees.
5. Projected benefits are limited to the federal (415) limitation for defined benefit plans.
6. Total contributions made by the City have been included in the calculations as of July 1, 2018.
7. The Entry Age Normal method used in this report was adopted effective July 1, 1994. The rates assumed for salary progression, investment return, and future post-retirement cost-of-living increases have been adopted effective July 1, 2010 and revised on July 1, 2013. All other actuarial assumptions used for the July 1, 2013 valuation were adopted effective July 1, 2002.

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
SCHEDULE OF ACTIVE MEMBER VALUATION DATA
Last Ten Fiscal Years

GENERAL ACTIVE MEMBERS

<u>Valuation Date</u>	<u>Number</u>	<u>Annual Payroll</u>	<u>Average Salary</u>	<u>Percent Increase (Decrease)</u>
6/30/2009	752	28,442,202	37,822	0.3
6/30/2010	744	28,034,775	37,681	(0.3)
6/30/2011	711	26,590,761	37,399	(0.7)
6/30/2012	700	26,907,626	38,439	2.8
6/30/2013	688	27,078,698	39,359	2.4
6/30/2014	688	28,418,464	41,306	4.9
6/30/2015	691	30,232,352	43,752	5.9
6/30/2016	706	31,029,264	43,951	0.5
6/30/2017	710	31,408,693	44,238	0.6
6/30/2018	686	31,102,746	45,339	2.5

POLICEMEN AND FIREMEN ACTIVE MEMBERS

<u>Valuation Date</u>	<u>Number</u>	<u>Annual Payroll</u>	<u>Average Salary</u>	<u>Percent Increase (Decrease)</u>
6/30/2009	244	10,988,856	45,036	(0.5)
6/30/2010	249	11,056,814	44,405	(1.4)
6/30/2011	246	10,895,336	44,290	(0.3)
6/30/2012	248	11,298,543	45,559	2.9
6/30/2013	245	11,351,316	46,332	1.7
6/30/2014	246	12,031,352	48,908	5.6
6/30/2015	242	12,833,418	53,031	8.4
6/30/2016	246	13,162,746	53,507	0.9
6/30/2017	234	12,737,798	54,435	1.7
6/30/2018	239	13,088,496	54,764	0.6

ALL ACTIVE MEMBERS

<u>Valuation Date</u>	<u>Number</u>	<u>Annual Payroll</u>	<u>Average Salary</u>	<u>Percent Increase (Decrease)</u>
6/30/2009	996	39,431,058	39,589	0.0
6/30/2010	993	39,091,589	39,367	(0.6)
6/30/2011	957	37,486,097	39,170	(0.5)
6/30/2012	948	38,206,169	40,302	2.9
6/30/2013	933	38,430,014	41,190	2.2
6/30/2014	934	40,449,816	43,308	5.1
6/30/2015	933	43,065,770	46,158	6.6
6/30/2016	952	44,192,010	46,420	0.6
6/30/2017	944	44,146,491	46,765	0.7
6/30/2018	925	44,191,242	47,774	2.2

Note: The valuation data above is presented for active members at the stated valuation date. The covered payroll amounts for the fiscal year disclosed on page 34 include payroll activity throughout the entire fiscal year instead of at a certain point in time. Therefore, the annual payroll on this page will not agree to the covered payroll amounts for the fiscal year disclosed on page 34.

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
SCHEDULE OF RETIREE AND BENEFICIARY DATA
Last Ten Fiscal Years

<u>Year Ended</u>	<u>Added to Rolls</u>		<u>Removed from Rolls</u>		<u>On Rolls at Year End</u>		<u>Percent Increase in Annual Allowances</u>	<u>Retirees as a Percentage of Active Members</u>	
	<u>No.</u>	<u>Annual Allowances</u>	<u>No.</u>	<u>Annual Allowances</u>	<u>No.</u>	<u>Annual Allowances</u>		<u>Number</u>	<u>Pay</u>
6/30/2009	25	\$ 462,648	14	\$ 252,420	473	\$ 8,734,869	5.9	47.6	22.2
6/30/2010	34	701,160	20	337,476	487	8,976,431	2.8	49.0	22.9
6/30/2011	31	644,028	17	233,340	501	9,273,682	3.3	52.4	24.7
6/30/2012	33	481,126	19	248,306	515	9,798,011	5.7	54.3	25.6
6/30/2013	43	762,467	11	244,789	547	10,032,957	2.4	58.6	26.1
6/30/2014	42	734,996	24	298,091	565	10,345,166	3.1	60.5	25.6
6/30/2015	54	983,389	20	281,571	599	11,022,071	6.5	64.2	25.6
6/30/2016	40	472,695	19	96,058	615	11,601,476	5.3	64.6	26.3
6/30/2017	55	601,291	16	206,649	652	12,174,988	4.9	69.1	27.6
6/30/2018	34	524,485	22	308,232	665	12,716,164	4.4	71.9	28.8

Other adjustments not included in the above charges are cost-of-living adjustments, offsets for workers' compensation and beneficiary option changes.

*The annual allowances will not agree to the amount reported on page 21 as benefits paid to participants due to one-time retiree bonuses paid during the fiscal year.

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
SCHEDULE OF FUNDING PROGRESS
Last Ten Fiscal Years

Valuation Date	Actuarial Accrued Liability (AAAL)	Actuarial Value of Assets	Assets as a Percentage of AAAL	Unfunded Actuarial Accrued (Asset) Liability (UAAL)	Covered Employee Payroll	UAAL as a Percentage of Covered Employee Payroll
6/30/2009	\$ 194,996,863	\$ 181,583,002	93.12%	\$ 13,413,861	\$ 39,431,058	34.02%
6/30/2010	199,018,107	178,430,719	89.65%	20,587,388	39,091,589	52.66%
6/30/2011	200,232,740	179,553,821	89.67%	20,678,919	37,486,097	55.16%
6/30/2012	206,452,918	174,103,211	84.33%	32,349,707	38,206,170	84.67%
6/30/2013	180,257,415	176,071,124	97.68%	4,186,291	38,430,014	10.89%
6/30/2014	187,932,189	194,075,656	103.3%	(6,143,467)	40,449,816	(15.19)%
6/30/2015	198,700,213	206,132,066	103.7%	(7,431,853)	43,065,770	(17.26)%
6/30/2016	211,011,377	209,854,554	99.5%	1,156,823	44,192,010	2.62%
6/30/2017	217,794,253	218,689,286	100.4%	(895,033)	44,146,491	(2.02)%
6/30/2018	228,026,950	232,284,874	101.9%	(4,257,924)	44,191,242	(9.64)%

The presentation of assets accumulated by a retirement system for the funding of benefit liabilities as a percentage of the aggregate accrued benefit liabilities provides an indication of the extent to which a system is funded. Analysis of this percentage over a period of time indicates whether the system is becoming financially stronger or weaker. The greater this percentage, the stronger the system. The presentation of unfunded accrued benefit liabilities as a percentage of the annual covered active member payroll removes the effects of inflation from reported changes in funding status. The smaller this percentage, the stronger the system.

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
SOLVENCY TEST
Last Ten Fiscal Years

Aggregate Actuarial Accrued Liabilities for						Percentages of Accrued Liabilities Covered by Actuarial Value of Assets	
Valuation Date	Retirees and Beneficiaries	Annuity Savings Accounts (a)	Employer Liability (b)	Total Non-Retired Accrued Liability (a + b)	Actuarial Value of Assets	Retirees and Beneficiaries	Non-Retired Accrued Liability
6/30/2009	\$ 92,296,646	\$ 19,834,946	\$ 82,865,271	\$ 102,700,217	\$ 181,583,002	100.0	87.0
6/30/2010	95,330,009	19,877,031	83,811,067	103,688,098	178,430,719	100.0	80.0
6/30/2011	98,720,447	19,556,035	81,956,258	101,512,293	179,553,821	100.0	80.0
6/30/2012	100,883,683	19,560,815	86,008,420	105,569,235	174,103,211	100.0	69.0
6/30/2013	90,921,087	18,931,082	70,405,246	89,336,328	176,071,124	100.0	95.0
6/30/2014	94,165,329	17,998,767	75,768,093	93,766,860	194,075,656	100.0	107.0
6/30/2015	100,193,761	16,601,222	81,905,230	98,506,452	206,132,066	100.0	100.0
6/30/2016	107,370,355	16,385,717	87,255,305	103,641,022	209,854,554	100.0	99.0
6/30/2017	114,428,585	15,164,613	88,201,055	103,365,668	218,689,286	100.0	100.0
6/30/2018	115,795,570	15,254,383	96,976,997	112,231,380	232,284,874	100.0	100.0

The progress of a retirement system in accumulating assets to pay benefits when due can be measured by examining the extent to which assets accumulated for benefits cover liabilities for future benefits to retirees and beneficiaries and liabilities for service already rendered by active members. In a system receiving actuarially determined employer contributions, the liabilities for future benefits to retirees and beneficiaries will generally be fully covered by accumulated assets. In addition, the liabilities for service already rendered by active members will be partially covered by the remainder of accumulated assets, and will increase over time.

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
ANALYSIS OF FINANCIAL EXPERIENCE

Approximate Reconciliation of the Increase (Decrease) in the Unfunded Accrued (Asset) Liability (UAL)

	<u>June 30, 2018</u>	<u>June 30, 2017</u>	<u>June 30, 2016</u>	<u>June 30, 2015</u>	<u>June 30, 2014</u>	<u>June 30, 2013</u>	<u>June 30, 2012</u>
UAL as of July 1	\$ (895,033)	\$ 1,156,823	\$ (7,431,853)	\$ (6,143,467)	\$ 4,186,291	\$ 32,349,707	\$ 20,678,919
Normal cost (NC) as of July 1	4,043,431	4,089,278	3,400,557	3,674,296	3,141,494	3,829,022	3,835,893
Interest for one year on UAL and NC	220,388	367,227	(282,191)	(201,865)	512,945	2,532,511	1,716,037
Contribution with interest	<u>(3,389,346)</u>	<u>(2,956,184)</u>	<u>(3,038,928)</u>	<u>(4,135,969)</u>	<u>(6,050,540)</u>	<u>(5,462,385)</u>	<u>(5,098,812)</u>
Expected UAL as of July 1	<u>(20,560)</u>	<u>2,657,144</u>	<u>(7,352,415)</u>	<u>(6,807,005)</u>	<u>1,790,190</u>	<u>33,248,855</u>	<u>21,132,037</u>
Adjustment due to change in actuarial assumptions	260,194	-	5,105,391	-	-	(30,716,477)	-
Actual UAL as of July 1	<u>(4,257,924)</u>	<u>(895,033)</u>	<u>1,156,823</u>	<u>(7,431,853)</u>	<u>(6,143,467)</u>	<u>4,186,291</u>	<u>32,349,707</u>
Net increase (decrease) in UAL	<u>\$ (4,497,558)</u>	<u>\$ (3,552,177)</u>	<u>\$ 3,403,847</u>	<u>\$ (624,848)</u>	<u>\$ (7,933,657)</u>	<u>\$ 1,653,913</u>	<u>\$ 11,217,670</u>

An Explanation of the Increase (Decrease) in UAL is as follows:

	<u>June 30, 2018</u>	<u>June 30, 2017</u>	<u>June 30, 2016</u>	<u>June 30, 2015</u>	<u>June 30, 2014</u>	<u>June 30, 2013</u>	<u>June 30, 2012</u>
A. Plan Experience							
1. Investment return on actuarial value of assets	\$ (2,357,192)	\$ (3,808,582)	\$ 1,722,581	\$ (6,742,968)	\$ (10,366,297)	\$ 15,681,697	\$ 23,118,189
2. New entrants	-	-	-	-	-	-	-
3. Liability Gain/(Loss)	<u>(2,140,366)</u>	<u>256,405</u>	<u>1,681,266</u>	<u>6,118,120</u>	<u>2,432,640</u>	<u>16,688,693</u>	<u>(11,900,519)</u>
4. Net plan experience [gain/(loss)]	<u>(4,497,558)</u>	<u>(3,552,177)</u>	<u>3,403,847</u>	<u>(624,848)</u>	<u>(7,933,657)</u>	<u>32,370,390</u>	<u>11,217,670</u>
B. Plan Changes	-	-	-	-	-	-	-
C. Assumption Changes	-	-	-	-	-	(30,716,477)	-
D. Net (increase) decrease in UAL	<u>\$ (4,497,558)</u>	<u>\$ (3,552,177)</u>	<u>\$ 3,403,847</u>	<u>\$ (624,848)</u>	<u>\$ (7,933,657)</u>	<u>\$ 1,653,913</u>	<u>\$ 11,217,670</u>

STATISTICAL SECTION

The Statistical Section provides additional historical perspective, context, and detail in order to provide a more comprehensive understanding of this fiscal year's financial statements, note disclosures, and supplementary information. This section provides multi-year trend of financial information to facilitate a more comprehensive understanding of how the organization's financial position and performance has changed over time. Additionally, detailed, multi-year analysis of benefits paid and current fiscal year-end retired members by type of benefits received are presented.



EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
SCHEDULE OF CHANGES IN FIDUCIARY NET POSITION
Last Ten Fiscal Years

	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
Additions										
Employer contributions	\$ 4,494,303	\$ 4,611,297	\$ 4,950,582	\$ 4,929,208	\$ 5,280,687	\$ 5,849,278	\$ 3,998,392	\$ 2,937,842	\$ 2,857,851	\$ 3,276,604
Investment income (loss) - (net of expenses)	<u>(40,504,078)</u>	<u>17,263,703</u>	<u>36,597,190</u>	<u>(1,137,468)</u>	<u>22,861,602</u>	<u>38,756,248</u>	<u>5,204,202</u>	<u>645,252</u>	<u>25,415,340</u>	<u>16,591,447</u>
Total additions	<u>(36,009,775)</u>	<u>21,875,000</u>	<u>41,547,772</u>	<u>3,791,740</u>	<u>28,142,289</u>	<u>44,605,526</u>	<u>9,202,594</u>	<u>3,583,094</u>	<u>28,273,191</u>	<u>19,868,051</u>
Deductions										
Benefit payments	8,734,869	8,976,431	9,273,682	9,798,011	10,032,957	10,345,166	11,436,684	11,601,476	12,174,988	12,716,164
Administrative expenses	118,776	118,562	131,158	109,792	107,025	109,411	143,714	125,428	111,095	86,905
Refunds	<u>136,262</u>	<u>3,660</u>	<u>190,414</u>	<u>15,871</u>	<u>74,438</u>	<u>34,958</u>	<u>157,590</u>	<u>21,697</u>	<u>25,085</u>	<u>-</u>
Total deductions	<u>8,989,907</u>	<u>9,098,653</u>	<u>9,595,254</u>	<u>9,923,674</u>	<u>10,214,420</u>	<u>10,489,535</u>	<u>11,737,988</u>	<u>11,748,601</u>	<u>12,311,168</u>	<u>12,803,069</u>
Change in net position	<u>\$ (44,999,682)</u>	<u>\$ 12,776,347</u>	<u>\$ 31,952,518</u>	<u>\$ (6,131,934)</u>	<u>\$ 17,927,869</u>	<u>\$ 34,115,991</u>	<u>\$ (2,535,394)</u>	<u>\$ (8,165,507)</u>	<u>\$ 15,962,023</u>	<u>\$ 7,064,982</u>

Source: Internal reports generated by the financial system of the City of Danville, Virginia and the Employees' Retirement System of the City of Danville, Virginia.

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
SCHEDULE OF BENEFIT PAYMENTS BY TYPE
Last Ten Fiscal Years

Fiscal Year Ended	Retirees			Beneficiaries	Total Benefits
	Age and Service Benefits	Disabilities	Vested		
6/30/2009	\$ 6,313,915	\$ 1,708,062	\$ 123,596	\$ 589,296	\$ 8,734,869
6/30/2010	6,401,580	1,790,900	153,708	630,243	8,976,431
6/30/2011	6,486,680	1,891,453	161,789	733,760	9,273,682
6/30/2012	6,953,544	1,911,096	198,713	734,658	9,798,011
6/30/2013	7,083,494	1,910,334	251,585	787,544	10,032,957
6/30/2014	7,275,508	1,937,340	293,004	839,314	10,345,166
6/30/2015	8,162,974	2,030,589	354,181	888,940	11,436,684
6/30/2016	8,188,654	2,101,636	398,273	912,913	11,601,476
6/30/2017	8,580,837	2,211,781	440,741	941,629	12,174,988
6/30/2018	8,956,461	2,337,307	460,040	962,356	12,716,164

Source: Internal reports generated by the financial system of the City of Danville, Virginia and the Employees' Retirement System of the City of Danville, Virginia.

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
SCHEDULE OF AVERAGE BENEFIT PAYMENTS
Last Ten Fiscal Years

Retirement Effective Date	Years Credited Service					
	5-10	10-15	15-20	20-25	25-30	30+
July 1, 2008 to June 30, 2009						
Average monthly benefit	\$ 561.79	812.90	-	1,133.55	2,084.55	2,849.00
Average final monthly salaries	\$ 4,275.16	3,522.17	-	3,071.33	4,856.71	4,639.00
Number of active retirees	8	2	-	3	2	8
July 1, 2009 to June 30, 2010						
Average monthly benefit	\$ 294.64	352.75	718.85	1,107.64	3,727.75	3,202.27
Average final monthly salaries	\$ 2,481.39	2,794.69	2,661.33	2,789.25	6,059.79	4,742.10
Number of active retirees	4	2	4	4	2	10
July 1, 2010 to June 30, 2011						
Average monthly benefit	\$ 248.46	847.88	587.72	1,399.35	2,103.58	3,059.32
Average final monthly salaries	\$ 3,213.93	2,946.24	2,478.10	3,923.74	4,298.08	5,145.98
Number of active retirees	1	3	2	9	6	7
July 1, 2011 to June 30, 2012						
Average monthly benefit	\$ 140.91	574.01	886.43	1,065.42	1,953.62	2,557.06
Average final monthly salaries	\$ 2,016.76	2,541.63	3,112.84	3,082.88	4,596.08	4,238.05
Number of active retirees	3	8	2	3	3	9
July 1, 2012 to June 30, 2013						
Average monthly benefit	\$ 440.95	265.56	692.86	1,091.22	1,557.93	2,808.63
Average final monthly salaries	\$ 2,264.14	2,572.92	3,037.06	3,243.52	3,287.55	4,518.29
Number of active retirees	8	2	5	7	3	11
July 1, 2013 to June 30, 2014						
Average monthly benefit	\$ 358.92	470.70	1,097.05	592.91	2,558.19	3,139.21
Average final monthly salaries	\$ 2,646.31	2,596.98	3,101.17	2,246.74	5,254.13	4,583.82
Number of active retirees	8	6	3	1	7	10
July 1, 2014 to June 30, 2015						
Average monthly benefit	\$ 340.07	916.25	550.44	1,152.97	2,295.94	3,471.74
Average final monthly salaries	\$ 2,501.82	4,346.44	2,251.16	3,300.95	4,428.54	5,070.09
Number of active retirees	11	2	4	5	4	15
July 1, 2015 to June 30, 2016						
Average monthly benefit	\$ 417.26	817.01	773.04	1,866.97	2,095.57	2,817.80
Average final monthly salaries	\$ 3,441.52	4,197.03	2,814.56	3,706.05	4,106.14	5,188.37
Number of active retirees	6	7	7	4	6	7
July 1, 2016 to June 30, 2017						
Average monthly benefit	\$ 459.87	542.14	1,581.67	1,882.85	2,117.08	2,871.30
Average final monthly salaries	\$ 3,810.82	2,521.70	4,336.76	3,899.73	4,274.93	4,333.47
Number of active retirees	5	8	7	4	12	14
July 1, 2017 to June 30, 2018						
Average monthly benefit	\$ 497.59	855.47	839.59	1,377.68	1,769.51	3,234.64
Average final monthly salaries	\$ 4,049.96	3,841.52	2,896.17	3,300.29	3,674.92	4,607.74
Number of active retirees	6	9	4	4	4	5

Source: Internal report generated by the financial system of the City of Danville, Virginia and the Employees' Retirement System of the City of Danville, Virginia.

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF DANVILLE, VIRGINIA
SCHEDULE OF RETIRED MEMBERS BY TYPE OF BENEFITS
June 30, 2018

Amount of Monthly Benefit	Number of Retirees	Type of Retirement*						Options Selected**			
		1	2	3	4	5	6	1	2	3	5
Deferred	305	-	-	-	-	-	305	-	-	-	-
\$0-100	10	-	2	-	4	1	3	3	-	4	-
101-200	32	5	7	-	1	19	-	28	3	1	-
201-300	28	4	9	-	7	8	-	16	5	7	-
301-400	38	9	13	8	5	3	-	25	9	4	-
401-500	36	5	8	8	6	9	-	23	7	6	-
501-600	24	5	8	2	6	3	-	16	5	3	-
601-700	28	4	9	5	3	7	-	17	7	3	1
701-800	22	4	6	5	3	4	-	16	5	1	-
801-900	30	7	8	5	7	3	-	17	4	9	-
901-1000	26	4	11	5	5	1	-	16	4	5	1
1001-1100	14	3	3	2	5	1	-	4	4	6	-
1101-1200	24	5	12	5	1	1	-	15	2	6	1
1201-1300	22	5	5	3	9	-	-	9	4	7	2
1301-1400	17	2	5	5	2	3	-	12	1	2	2
1401-1500	19	4	7	2	6	-	-	9	3	5	2
1501-1600	23	9	3	6	3	2	-	13	6	4	-
1601-1700	11	3	1	6	1	-	-	8	-	3	-
1701-1800	16	6	5	3	-	2	-	9	5	2	-
1801-1900	11	4	2	4	-	1	-	7	3	1	-
1901-2000	19	7	5	5	1	1	-	13	4	2	-
2001-2100	10	3	5	2	-	-	-	6	1	2	1
2101-2200	9	2	6	1	-	-	-	5	-	4	-
2201-2300	10	6	2	-	2	-	-	3	6	1	-
2301-2400	10	4	1	5	-	-	-	8	1	1	-
2401-2500	16	7	5	3	1	-	-	9	5	2	-
Over 2500	160	69	63	26	2	-	-	93	25	35	7
Totals	970	186	211	116	80	69	308	400	119	126	17

* <u>Type of Retirement</u>		** <u>Options Selected (See Page 10)</u>	
1	Service retirement for age and/or service	1	Life
2	Early retirement	2	100% spousal
3	Non-occupational/occupational disability	3	50% spousal
4	Joint survivorship - benefit paid to beneficiary	5	Social Security Option
5	Vested retirement		
6	Deferred future benefits (includes occupational disability)		

Source: Internal reports generated by the financial system of the City of Danville, Virginia and the Employees' Retirement System of the City of Danville, Virginia.

COMPLIANCE SECTION



**INDEPENDENT AUDITOR'S REPORT ON INTERNAL CONTROL OVER FINANCIAL
REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF
FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH
GOVERNMENT AUDITING STANDARDS**

To the Board of Trustees
Employees' Retirement System of the
City of Danville, Virginia
Danville, Virginia

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the Employees' Retirement System of the City of Danville, Virginia, (the "System"), as of and for the year ended June 30, 2018, and the related notes to the financial statements, which collectively comprise the System's basic financial statements, and have issued our report thereon dated November 28, 2018.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered the System's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the System's internal control. Accordingly, we do not express an opinion on the effectiveness of the System's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected, on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies, and therefore, material weaknesses or significant deficiencies may exist that were not identified. **Given these limitations we did not identify any deficiencies in internal control that we consider to be material weaknesses. We did identify a certain deficiency in internal control, described in the accompanying schedule of findings and responses as Item 2018-001, which we consider to be a significant deficiency.**

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the System's financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. **The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.**

Employees' Retirement System of the City of Danville, Virginia's Response to Findings

The System's response to the finding identified in our audit is described in the accompanying schedule of findings and responses. The System's response was not subjected to the auditing procedures applied in the audit of the financial statements and, accordingly, we express no opinion on it.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the System's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the System's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Brown, Edwards & Company, L.L.P.

CERTIFIED PUBLIC ACCOUNTANTS

Lynchburg, Virginia
November 28, 2018

**EMPLOYEES' RETIREMENT SYSTEM OF
THE CITY OF DANVILLE, VIRGINIA**

**SCHEDULE OF FINDINGS AND RESPONSES
June 30, 2018**

A. FINDING – FINANCIAL STATEMENT AUDIT

2018-001: Segregation of Duties (Significant Deficiency)

Condition:

An important aspect of any internal control system is the segregation of duties. Not all duties at the System have been adequately segregated. In an ideal system, no individual would perform more than one duty in connection with any transaction or series of transactions. With limited staff, sufficiently separating duties can be difficult or even impossible. As with all areas of internal control, management and those charged with governance should make careful decisions about the cost versus benefit of any internal control.

Recommendation:

We recommend that management take steps to eliminate performance of conflicting duties where possible or to implement effective compensating controls. Such duties are: the Retirement Accountant should not have access to create new retirees in the system; this function should be performed by Human Resources only.

Management's Response:

Management concurs with the recommendations above. Management had taken actions to address the recommendations that are possible with the limited staff available for the ERS. The retirement accountant still has the ability to create new retirees, however, this task is never performed by the retirement accountant.

**EMPLOYEES' RETIREMENT SYSTEM OF
THE CITY OF DANVILLE, VIRGINIA**

**SCHEDULE OF PRIOR YEAR FINDINGS AND SUGGESTIONS
June 30, 2018**

A. FINDING – FINANCIAL STATEMENT AUDIT

2015-001: Segregation of Duties (Significant Deficiency)

Condition:

An important aspect of any internal control system is the segregation of duties. Due to turnover in personnel in the past year, not all duties at the System have been adequately segregated. In an ideal system, no individual would perform more than one duty in connection with any transaction or series of transactions. With limited staff, sufficiently separating duties can be difficult or even impossible. As with all areas of internal control, management and those charged with governance should make careful decisions about the cost versus benefit of any internal control.

Recommendation:

We recommend that management take steps to eliminate performance of conflicting duties where possible or to implement effective compensating controls. Such duties are: the Retirement Accountant should not have access to create new retirees in the system; this function should be performed by Human Resources only. Year end 1099-Rs should be processed by someone separate from Human Resources and the Retirement Accountant, so no manipulation in the filing could be performed. This would allow notification from the IRS for any discrepancies in retiree information. These discrepancies should be investigated by someone besides the Retirement Accountant.

Status:

The 1099-Rs are now filed by the Business Systems Accountant (BSA). The BSA also prints the forms and receives any correspondences from the taxing agency. Please see the current year comment for further update.